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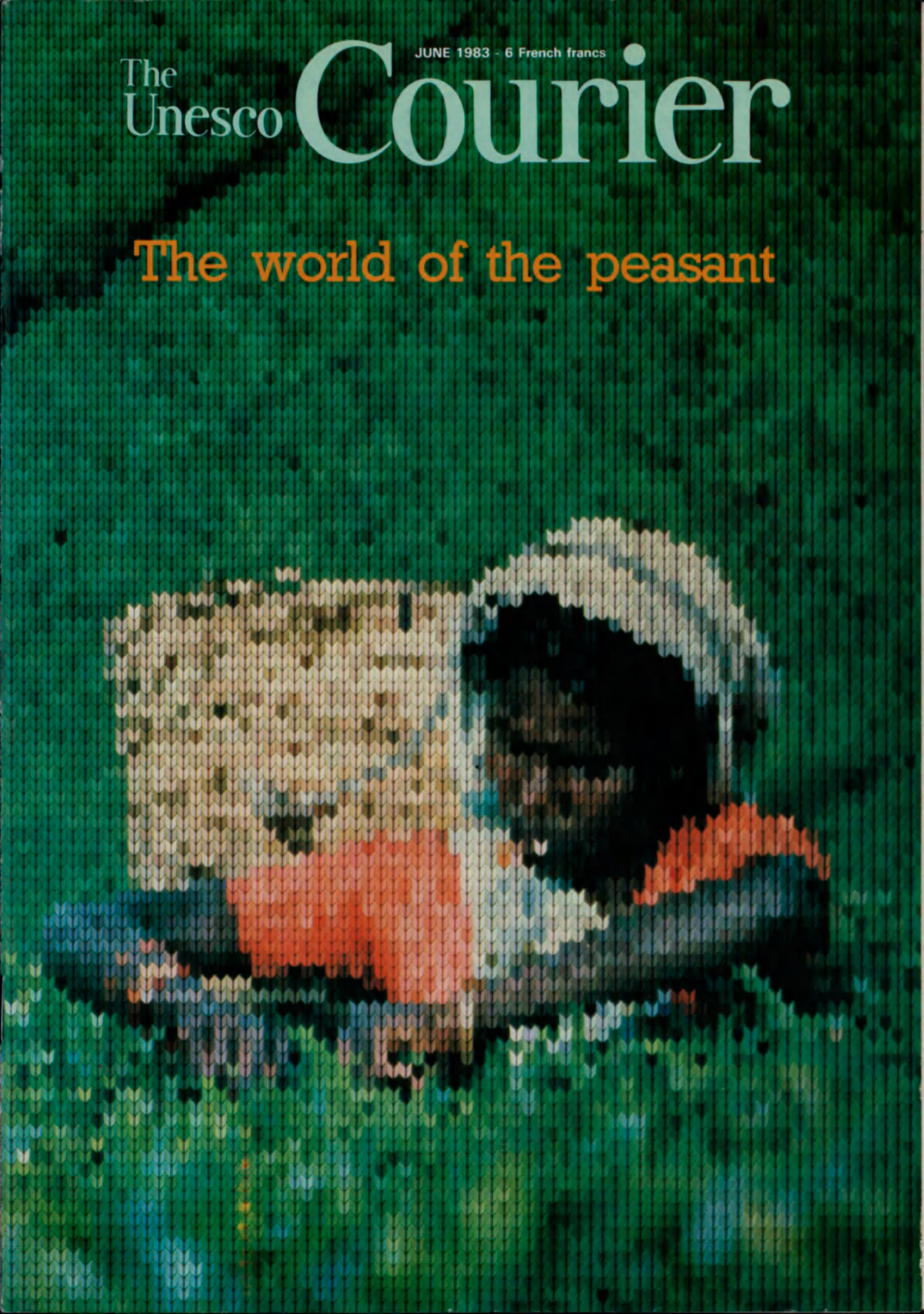
The Unesco Courier

The world of the peasant



A time to live...

Photo © Paul Almasy, Paris

14 MALAYSIA **Nursery maids**

Many tropical and sub-tropical trees and shrubs produce the milky fluid latex from which rubber is extracted, but almost all commercially produced rubber comes from the *Hevea brasiliensis,* a tree of South American origin. Trees are tapped by making a shallow incision in the trunk from which the latex flows into a collection cup. Above, women at work in the nursery section of a rubber plantation in Malaysia, the world's largest producer of rubber.

The Unesco Courier

A window open on the world

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Editorial

OUR purpose in devoting this issue of the Unesco Courier *to* The World of the Peasant *is to draw attention to a situation which, throughout the world, is far from satisfactory. Almost everywhere, more and more workers are leaving the land, and, in many countries, notably in the Third World, the conditions of those who remain are seriously deteriorating.*

In the industrialized countries, mechanization of agriculture and the introduction of intensive farming methods have necessitated a regrouping of agricultural land and (except in the socialist countries) heavy private capital investment. In spite of accumulating enormous debts, the small farmers have been unable to keep up with these changes and have been obliged to sell their lands and move to the towns.

The situation is somewhat different in the Third World countries. There the peasants are above all victims of the big transnational agro-businesses which, guided essentially by the laws of profit, control the national and international markets and introduce monocultures and set in motion "green revolutions" as they see fit. Millions of small farmers have thus been forced to move either to the urban agglomerations where, crowded into shanty-towns, they are reduced to the condition of a sub-proletariat, or to the marginal lands of the mountain slopes where, in their struggle to eke out a bare subsistence, they have, in spite of themselves, contributed to the deforestation and erosion of the land and to the spread of desertification. Nevertheless, deforestation is in major part due to the reckless exploitation of the forests by big companies. In the countries of the Sahel, desertification is becoming a catastrophe of continental proportions. Thus, in many parts of the globe, there are an increasing number of disaster areas of which the peasants are the primary victims.

This forced and ever increasing uprooting of those who work on the land is not only a human tragedy, it also involves the irretrievable loss of the culture which is their birthright. And this ancient and precious culture must be preserved, indeed developed, for it is still a vital force, as witness the works being created today by the peasants of Haiti, the Andean regions and China.

The situation of the world's peasants will improve when they are more fully integrated, both economically and culturally, into national life; when they have at their disposal the scientific and technological means to increase the yield of their lands; when the problems of the disaster areas are systematically tackled and the international community devotes to them the necessary efforts and resources; and, finally and above all, the principles on which the world's international markets are based are altered to meet the imperatives of equity and justice.

Front cover by Alberto Incroci © International Fund for Agricultural Development, Rome.
Back cover: Dry farming (crop-raising without irrigation in regions of limited moisture) in Washington State, USA. Strips of stubble are left in the fields (darker patches in photo) to trap snow and retain the maximum amount of moisture.
Photo Georg Gerster © Rapho, Paris

The forgotten ones of Latin America

by Guillermo Almeyra

EXCEPT for brief intense periods during which they have occupied the forefront of the national stage, like lava which escapes through fissures in the ground during an earthquake, the peasants of Latin America have always come last, have always been forgotten.

Nevertheless, it is on their shoulders that the main brunt of the development effort has always fallen. The economies of most Latin American countries depend on the export of farm products, and it is the production of basic consumer goods by them, including goods for their own consumption, that makes it possible to sustain the living standards of the continent's overgrown modern cities. The backwardness in which the rural areas and their inhabitants have been kept and which is characteristic of a certain type of economy and land tenure, seriously restricts the expansion of the domestic market, economic development and the raising of the cultural, dietary and material standards of Latin American countries. It is an enormous historical injustice and the source of much serious social instability.

The peasants, who by definition are isolated, scattered and trapped by local living conditions, thus represent a burden on the existing social structure of their countries. This is why the searchlight of international public opinion has been focused on them and why they are becoming a world political force of primary importance which the industrialized countries must take into account in their calculations and in the formulation of their policies and strategies. Hence the importance of keeping what happens in the depths of this disorganized human mass, which forms the bulk of the population in many Latin American countries, under constant observation. For this reason also it is essential, if we are to understand and foresee what may happen in the future, to follow closely the main trends which are agitating and transforming the rural world.

For, to be precise, those concerned are inhabitants of the countryside rather than peasants—members of the indigenous population in many countries; sometimes co-tenants of the land; sometimes day-labourers; sometimes landless peasants without fixed employment; native or *mestizo* artisans; small tradesmen who in reality are needy unemployed peasants in disguise; large families which are only partly involved in production as producers of the manpower of the privileged classes.

Moreover, it is a rural world which varies profoundly according to region, not only between countries but also within each of them. During good seasons, the peasants of the Rio Negro or Unco valleys in Mendoza, Argentina, used to sell their fruit crops at a good price, buy a house, travel in Europe, change their car, buy machinery. Nowadays, they give away their apples on the streets of the cities which they invade with their tractors.

The indigenous communities of Oaxaca in Mexico react similarly to the direct effects of the economic crisis on their lives, defending their woods from the *talamontes* who try to steal their timber, but there is a cultural and social abyss between them and the fruitgrowers of Argentina. The millions of *boias frias*, the Brazilian day-labourers who wait on the streets and market-places of rural centres for someone to hire them if only for a day, and who are defenceless, without rights and any kind of organization, have very little in common with the workers on the sugar plantations in the north of Argentina, in Northern Peru, in Mexico, who often own important producers' co-operatives which comprise the land and factories and who are always unionized and protected by the labour law. The indigenous communities of Quiché Indians in Guatemala, the Mexican sierras, and the Andes mountain ranges have special characteristics and problems which distinguish them profoundly from the *mestizo* peasants who are integrated into the market system, since they have to defend their pre-capitalist way of life while at the same time seeking a just integration into the national community. Even when they share the misery of other needy country folk, they do so with a much greater degree of helplessness and have to face much greater obstacles.

The fact is that, just as there is not one but several Latin Americas, brothers but different from each other, there is not a single rural world. For the peasants and inhabitants of the countryside, the difference in conditions of historical development from country to country or from region to region, is both qualitative and quantitative. There is no dualism, no juxtaposition between two modes of production, two ways of life, two cultures. There is, on the other hand, a form of development that is both

Photo Maximilien Bruggmann © La Spirale, Yverdon, Switzerland

GUILLERMO ALMEYRA, *Argentine writer and journalist, was formerly Professor of Advanced Studies at the School of Political Sciences of Mexico's Autonomous National University. He is a contributing editor of the U.N. Food and Agriculture Organization's magazine* Ceres *and European correspondent of the Mexican Ministry of Education Radio Service as well as of a number of Latin American magazines and newspapers.*

unequal and linked. The so-called economic, social and cultural marginalization of vast numbers of human beings is an intrinsic part of the particular kind of urban industrial growth of the Latin American region and of its integration, in the present phase, into the world market.

This fragmentation of the Latin American rural world does not, however, exclude the existence of broad common trends which are the immediate result of "modernization", that is to say, the rapid and ubiquitous penetration of the dominant system of world production and the transnationalization of the economy, leading to common patterns of consumption and cultural models. Very broadly speaking, and always bearing in mind that different social fabrics offer varying degrees of resistance to this modern economic, political and social version of the Procrustean bed, it is possible to discern a number of common phenomena which are changing the traditional characteristics of Latin America. The most significant is perhaps the demographic transformation.

Today, millions of needy peasants wander through their countries, covering thousands of kilometres in search of improved social conditions which are unattainable for them. Hundreds of thousands of them cross national frontiers. Countries like Paraguay and Uruguay have been virtually emptied of much of their active labour force, of a decisive proportion of their younger, more dynamic, more productive, better trained people. The capitalistic modernization of agriculture acts in the Latin-American countryside like a suction-propulsion bomb. It absorbs and expels millions of people outwards towards the cities, since the modern agro-industrial enterprise needs a relatively small labour force and tends to maintain the smallholdings where the peasants live on their own produce as reserves of seasonal workers.

This migration of economic origin is responsible for a veritable dissolution of the old traditional type of agrarian society, and is leading to the transformation of the social, cultural and even physical environment of the Latin American countries. But in many of these countries, especially in those of Central America, there is also political migration. It is prompted and fed by economic migration, but it also has its own causes, dynamics and characteristics. The insecurity in Guatemala, for example, has forced a million people, i.e. one seventh ▶

Peasants at work in the Peruvian *altiplano*, the high plains, 3,600 metres above sea level, between the eastern and western cordilleras of the Peruvian Andes.

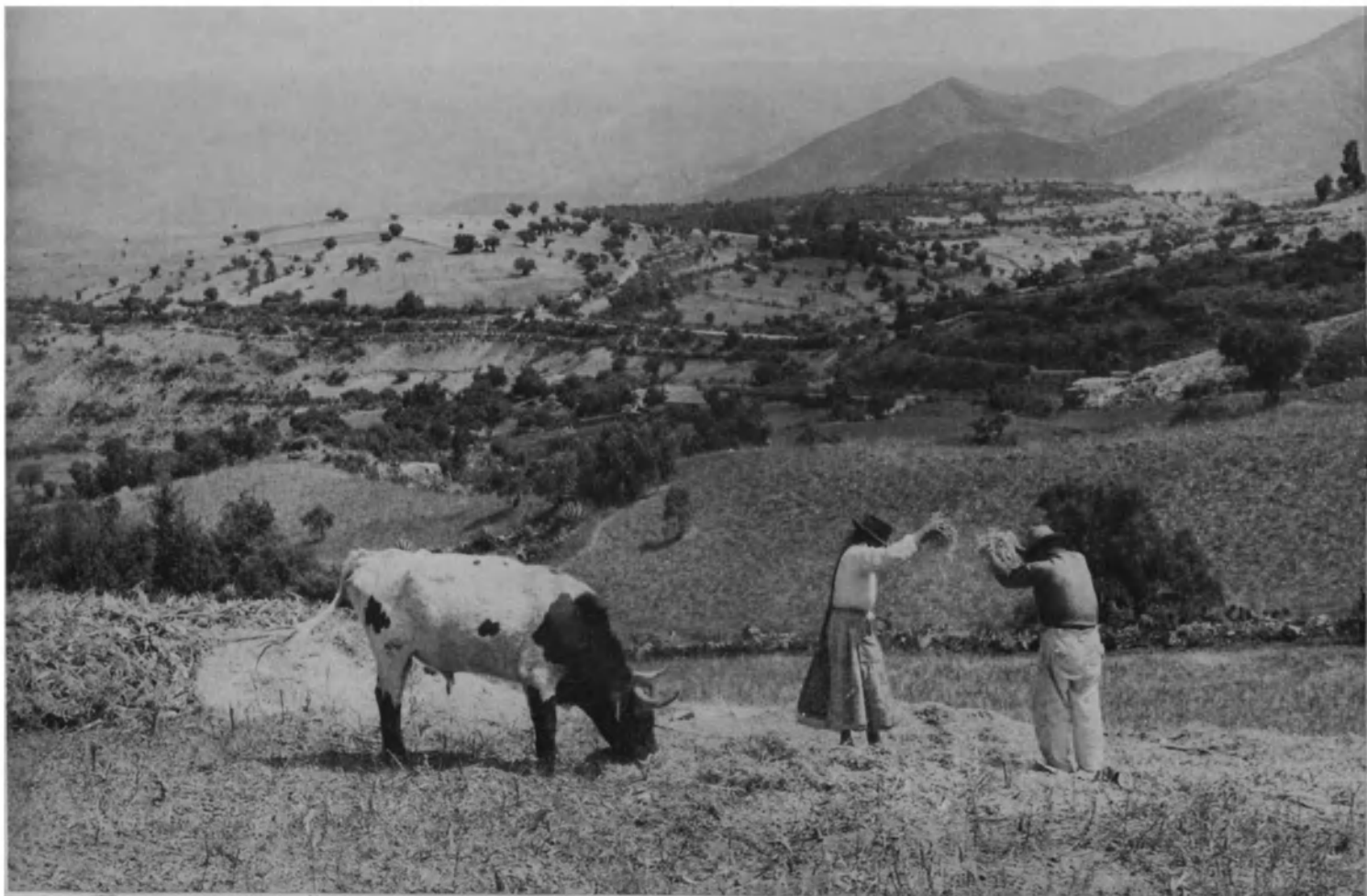
Photo Maximilien Bruggmann © La Spirale, Yverdon, Switzerland

Above, rice fields in the valley of the Rio Jequetepeque, near the ancient Inca city of Cajamarca, the principal population centre of the north Peruvian Andes.

▶ of the total population, to abandon their homes and villages.

But the most typical feature of the new Latin America is that it is ceasing to be a rural continent. All of it is changing into an area where, within a few years, the peasants will be a minority. Even in Central America, where the rural population still forms 60 per cent of the total, cities are growing at an annual rate of more than 5 per cent. Uncontrolled urban growth is leading to "ruralization" of the cities, and capitalistic modernization of rural areas, which is being effected without the creation of jobs corresponding to the changes, absorbs and destroys the marginal lands, violently transforms the natural and social environment, polarizes the rural population by creating a small sector of permanent workers and a large mass of casual workers or emigrants.

On the other hand, the transnationalization of agriculture and the agro-food industry has transformed countries which traditionally produced and even exported basic foodstuffs into importers of these products, thus increasing their level of dependence on the metropolitan countries, who are no longer satisfied to export capital and manufactured goods, but also export agricultural products. Naturally, the importation of foodstuffs at lower prices than those of the home product (thanks, in many cases, to favourable tariff or credit policies) deals a harsh blow to the stability of the poor or moderately well-off peasant. Moreover, the importation of finished products as well as changes in taste imposed by advertising which is also transnational, leads to the replacement of locally produced foods, such as manioc, cassava or barley, by others which have to be paid for in hard currency.



The prices of rural produce are declining, ownership of land, of the means of production, and access to credit are being concentrated in the hands of a few, rural unemployment is spreading, large numbers of indigenous peasants are being transformed into casual labourers in the coffee or banana fields or on plantations owned by big landowners or transnational companies. All this is creating great discontent in the rural sector throughout Latin America, irrespective of its level of development, ethnic origin, or culture.

At the same time, the enforced urbanization of millions of people is dramatically introducing the problem of the rural areas into the cities and putting an end to the separation and historical confrontation between urban and rural dwellers, because the former can no longer ignore the rest of the country and the latter, who are being transformed into a minority, cannot solve their problems in isolation from their fellow-citizens. So that, breaking out of their traditional isolation, the peasants are coming to depend upon national institutions and organizations of urban origin such as the Church, the trade unions, and the political parties, and this introduces new problems and new social and political forces into rural life.

At the same time, the birth rate is tending to decline, but the death rate is declining more. Life expectancy is increasing. The level of education is also greatly improved, so that the majority of the population is now literate and better informed, especially through the development of oral means of communication, such as radio and even television, which now reach the most remote corners of the countryside.

This new cultural level and new capacity to form judgments are combined with a critical economic situation and render intolerable political situations which were previously contemplated with fatalism or resignation. Obviously, this demand for participation and democracy clashes with the "modernization" of agriculture, which grants less and less importance to the rural vote and even undermines the basis of rural populism. The paradox of development in Latin America lies in the fact that this development is not identified simply with economic growth and that the powerful forces interested in maintaining the present social structure are working hard for a change in the economy which cannot fail to have profound political and social consequences. We are witnessing the disappearance of the old rural world (which will survive only in pockets for use by "modern" agriculture or will change completely) and the birth of a new Latin America.

■ **Guillermo Almeyra**

Photo © A. Munoz de Pablos, Le Pecq, France

Above, harvesting the potato crop in the Andean region of Venezuela.

***Market Scene*, by the Haitian artist Micius Stéphane.**

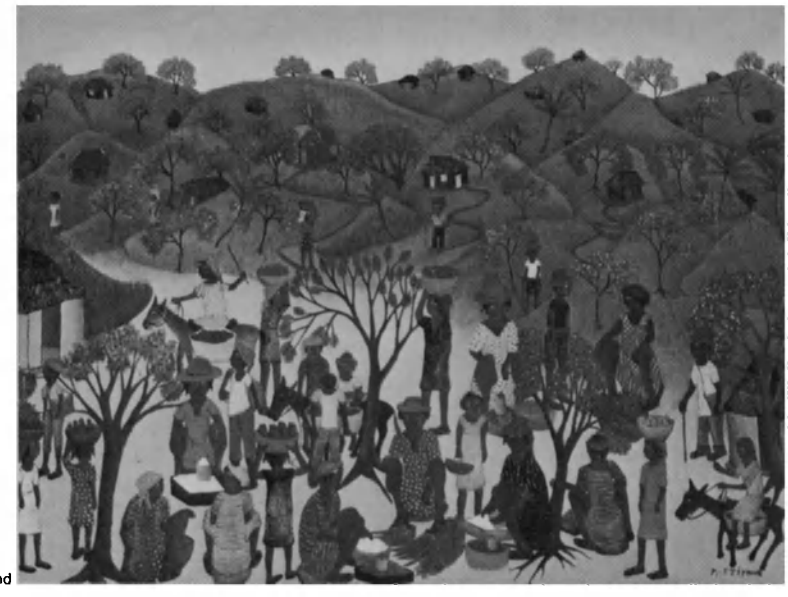


Photo © Editions Albert Skira, Geneva

Left, on the high plateau (altitude 3,300 metres) near the town of Quinua, in the Ayacucho region of north central Peru, peasants laboriously air their wheat by hand to prevent fermentation.

Photo Maximilien Bruggmann © La Spirale, Yverdon, Switzerland

Photo © Frobenius Institutes, Frankfurt, Fed. Rep. of Germany

Traditional adobe dwelling, northern Togo.

The seeds of wrath

What future for Africa's silent majority?

by Jean-Marc Ela

Photo Chatillon © Rapho, Paris

Village near Mbout, southern Mauritania.

'WE know that we are peasants; we know that birds don't all fly at the same height. We don't want to be like the rich people in the city. We want a better life and a better living."

To assess the full significance of this remark made by an old man of Piala, a remote village in the vast Sahel, it must be remembered that in spite of headlong and anarchic urban growth, often with alarming consequences, Africa is still overwhelmingly a continent of peasants. The latter constitute an entire people which the information media, generally monopolized by ruling parties, scarcely discuss except when forced to do so by natural catastrophes or international pressures.

What do people in the big cities actually know about the living conditions, difficulties and aspirations of the millions of Africans who are reduced to impotent silence? In an Africa where the big capital cities are a raging sickness, are the peasants a fringe population destined to find at the end of their migration to the city a life of unemployment and poverty in the proliferating shanty-towns? Are the peasants of Africa a marginalized people—or are they on the march?

It is true that the situation differs from country to country, in accordance with differences in climate, levels of development, and political régime. However, one observation must be made: it is not certain that the conditions of African peasants have been improved by the advent of new States. For many men and women, perhaps the situation is worse than before. *The suns of independence* do not shine for the people of the bush—such is the mute message which is constantly repeated in different regions and which comes from *down below*, from villages where the peasants feel that they are living as veritable pariahs on their own land.

The malaise of the peasantry is striking in countries where development is concentrated in a single big city. The metropolis with its ultra-modern quarters is the centre of power and money, while the frustrations of the poor turn into bitterness since the development of an élite rests on the over-exploitation of the work of the peasant. It is not hard to imagine the social upheavals caused by the irruption of capital into rural areas in countries which appear to investors as a fiscal paradise. Many peasants, depressed into "absolute poverty" are forced to work as labourers in the rice-fields or on the cotton or sugar plantations. Many have been dispossessed of their land when major agro-industrial projects were put into operation.

A visitor may be surprised by the state of deprivation in African villages which have been subjected for generations to the single-crop cultivation of cocoa, coffee, cotton, or

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JEAN-MARC ELA, *of Cameroon, is a Roman Catholic priest and teacher and is responsible for a "Schools Without Walls" project and a literacy teaching experiment among the peasants of northern Cameroon. He is a member of the International Conference on the Sociology of Religions and has taken part in a number of symposia and seminars in Africa and throughout the world. He is the author of* Le Cri de l'Homme Africain *(1980) and* L'Afrique des Villages *(1982).*

tea. While exports increase, the peasants sink more deeply into poverty and famine. An article in the magazine *Dialogue* points out that the peasants in Rwanda are the victims of a form of exploitation resulting from the industrialized cultivation of export crops. Tea appears as a crop with ruinous consequences falling mainly on the "villagers."

There is no need here to go deeply into the question of the dictatorship of groundnuts in Senegal or of cotton in Chad. What is claimed to be the "modernization" of agriculture is tantamount to a systematic disparagement of peasant systems of farming, and leads to a kind of structured incoherence which encourages the cultivation of export crops to the detriment of food crops, thus aggravating the inequalities between the industrialized countries and Africa.

As Philippe Hugon has noted, "the growing inequality in income distribution shows up as an impoverishment of the rural masses (...). A privileged group enjoys an income more than a hundred times greater than that of the rural masses (...). The peasant has an annual income which remains constant, while he finances State expenditure to a greater and greater extent. Change is leading to a pauperization of the rural mass."

A group of young Cameroonians who camped among the peasants in the Yoko area, some 100 kilometres from the capital, had some interesting things to say about their experiences. What struck them first were the bottlenecks and breakdowns of a dependent agriculture which is incapable of meeting the needs of a balanced diet and providing hygienic living conditions. "I asked what they grew. They said that their main crops used to be manioc, cucumbers, groundnuts and maize, and that 'you can't eat cacao and coffee'." Another student noted, "They go off to the fields very early and only return in the evening." "Sometimes the peasants go to work without having eaten. We never had breakfast all the time we were in the village. Like the peasants we were hungry when we went off to work in the morning." This allusion to severe hunger accurately reflects the conditions of the peasants in these areas where, furthermore, the health situation is deplorable.

A revelation to people who know nothing about life in the bush, the difficulties of surviving in stricken regions gave rise to the following comments from the city students: "This experience gave me an opportunity to discover the facts," said one. Another noted, "We are discovering the hidden peoples who are not mentioned in the schoolbooks." This aspersion cast at school learning also goes for the information media in general, as well as high-sounding and delusory lists of achievements: "At last we are finding out together the true facts about the country which are concealed behind speeches and the lies of the mass media."

This Africa of villages exposed to the perverse effects of models of development which lead nowhere is Africa in all its authenticity. Among the urban élites, what Albert Tévoédjéré has denounced as the "madness of mimetism" has bred needs and desires linked to a Western-style way of life. These needs must be paid for, which means currency, which means taxes, the proceeds of which benefit a rich men's club. By becoming part of the monetary system, the peasants set out on the road to proletarization, and a small privileged group reaps the benefits. At a time when the rich nations are constantly tugging at the rope which is strangling Africa, the black peasants may be the real forgotten ones of the earth, their future a challenge to all who seek a more equitable and more human world.

After the disenchantment of the decades of independence, many peasants tend to believe that changes in their lives will not necessarily come from above. The future is being explored in experimentation with development alternatives, starting with action in which the groups themselves become the architects of change in their own environment. We have been able to measure the importance of these factors among the peasants of north Cameroon, in a region where the problems of land, water, and millet exist in acute form.

For populations in search of land to provide them with a living, the delusions of rural organization appear when peasants cannot be sure of keeping fields they rent on a yearly basis from the traditional village notables. How can you think of using new farming methods if at any moment you may find yourself dispossessed of your land by officials who, when embarking on the "Green Revolution", have a tendency to confiscate land where cultivation is possible? Encouraging the peasants to act begins by motivating them to break out of deadlocked situations. In regions threatened by food shortages the first stage in the process may be taking stock of the land problems which condition the integration of young people into the rural environment, the health of the people, the education of children, the equilibrium of the family, and nutrition problems.

Such a project calls for an exchange of views between those involved in the different sectors of the development process ▶

Photo © Yvette Vincent Alleaume, Paris

Dogon millet store, near the cliffs of Bandiagara, Mali.

Photo A. Tessère. Unesco

Grain storage basket in a village near Banfora, Upper Volta.

▶who often work in isolation, each keeping to his own special field, without taking account of the solidarity which is necessary. Since there is no point in learning how to be a better farmer if you have no land or if you have no control over what you produce, it is vitally important to encourage the peasants to state their fundamental problems, work out solutions to them, and decide what action to take. For peasants left to languish in ignorance by an élitist school system, the experience of learning to read and write according to an approach which is based on the African oral tradition and which encourages the learner to become more aware of the world around him provides tools of thought and a means of emerging from captivity. Thus it is possible to achieve literacy by assuming responsibility for family, health or nutrition problems. At the same time, learning to read makes it possible to cope with the cotton markets where illiterate peasants are cheated by weighers and buyers.

The goal of these operations is to further the kind of development in which the millet granary, which conflicts with an exteriorized model of agriculture leading to starvation and the marginalization of the peasant world, again becomes part of family life. In villages where cotton is king, to concentrate farmers' attention on the millet granary is to meet a basic need—"food first". The point is not only to make sure that they do not die of starvation, but also to resist the speculation of which the peasants are victims during transitional periods when food products, bought at low prices at harvest time, are sold back to them at high prices by dishonest dealers.

African peasant women sometimes work until immediately before giving birth to their children, and the overwhelming demands on their time only leave them few opportunities for rest and leisure. Any arrangement which enables them to speak out about the problems of village life finds a place in a global project for the transformation of living conditions.

It is essential that women should be able to express their opinions about the use of crops and money, just as they are necessarily concerned by the invasion of capital into rural life caused by the development of export crops which aggravate food problems in a region in which most children suffer from malnutrition.

Consequently the women, who bear the responsibility for the health of the children, are asked to give their opinions on the question of the land where cotton drives out millet. All the social forces in the village should take part in a coherent alternative development project. And so efforts are concentrated on the young schoolchildren.

Through meetings where ideas are aired and exchanged, the schoolchildren gradually learn to become "the eyes of the village" and to act in defence of the peasants. "Getting people to understand the use of hygiene", "advising mothers to feed their children well", "diversifying the diet", "teaching people how to obtain drinking water", "informing parents about the country's problems", "shielding the peasants on the cotton markets"—these are some of the responsibilities discovered by young people when they reflect on the solidarity between pupils and peasants.

The "school without walls" project, with which I am concerned, reflects this desire to re-examine the content of teaching in the light of village questions in which the child may be a factor of change. In spite of such institutional constraints as timetables and examinations, the aim is to throw open the school to village families and communities so that the teachers themselves, after being initiated to social and economic conditions, can stimulate awareness of their environment.

The awakening of the village should be rethought and should be focused on school problems, for as a peasant at Tokombéré told me, " a village without a school is a village of slaves." We are faced with the problem of a genuine peasant movement which needs a certain number of tools to frée itself from the constraints which hinder its progress. How can the power which the "professionals" of development tend to confiscate be returned to the villages?

Of course difficulties abound in this shoulder-to-shoulder struggle at the side of the proletarianized rural people. The sacralization of customary or administrative powers may paralyze all innovations in villages where the power of the "chief" acts as a brake on endogenous development. What can be done when the traditional authorities demand taxes between crops, thus forcing hungry people to go into debt or to sell their meagre food reserves? In an Africa which is gagged, how can an alternative form of development be pro-

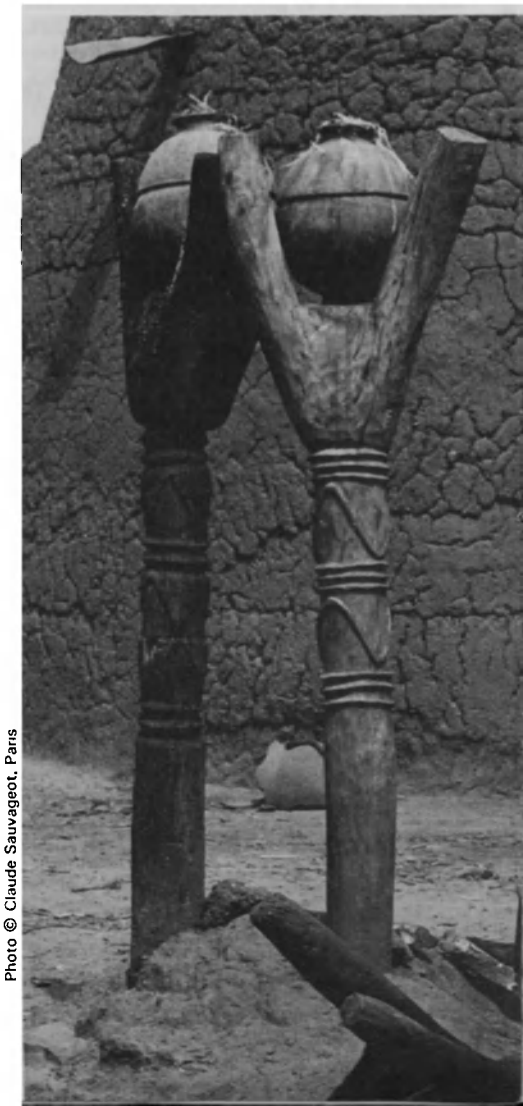


Photo © Claude Sauvageot. Paris

Fetishes placed near a mud-built granary, Upper Volta.

moted in a situation in which "rural development" continues to embody the harsh and unacknowledged reality of peasant over-exploitation to the profit of certain private interests.

Today methods are no longer exactly the same, and the balance of power has changed appearance. Forms of peasant resistance in colonialized Africa brought to light a community dynamic unsuspected in a continent subjected for centuries to violent exploitation.

Throughout the continent, groups of people are forming at grassroots level. They are the focus of a kind of "revolution without tom-toms" which is mirrored in peasant struggles and which is conditioning the transformation of conditions of health and human settlements, the organization of agricultural production, the promotion of women, nutrition and the management of community affairs, relations between young and old—in short, the defence of the rights of the peasants.

If the circle of development *in* dependence which leads to the development *of* dependence is to be broken, the peasants' creative powers must be returned to them by making the village community the matrix of a new society. The village association appears to be an indispensable institution in this context, as long as it is borne in mind that the African tradition is not immune to contradictions and conflicting interests. Experience shows that many rural groups have ceased to exist as a result of their inner contradictions. To consider a return to what is called the pre-colonial community spirit as a miracle solution may be to nurture dangerous illusions, not only by dissimulating the inequalities and conflicts which are inherent in any social situation but by masking various forms of domination and confiscation of power to the profit of a privileged minority.

There is nothing automatic about the forward march of peasant communities. There must be a constant process of research and reflection on the condition of local communities, whose interests are not necessarily those of the regional, national or international environment. To contest in practical terms the adoption of the Western model of development is to confront the central authorities and the forces of money. Through the struggles of the peasants and their capacity to organize themselves, a new way of existing in the world is being sought along these lines.

As long as the peasants of Africa are silent, humanity will be the less—reduced by an essential part of itself. Change is necessary and it must come as a result of small steps towards liberation. We have all set out on a long road towards the eradication of poverty and the emergence of an African man liberated from renewed forms of colonial exploitation. The words of an old African sage, Amadou Hampaté Ba, come irresistibly to mind: "Don't believe for a moment," he said, "that the task is too great and that our efforts are derisory. There is no such thing as useless effort. In the beginning, the baobab seed is no bigger than a coffee grain. And yet from it grows a sturdy and majestic tree whose shade is beneficial to everyone."

■ **Jean-Marc Ela**

A village called Nanpur

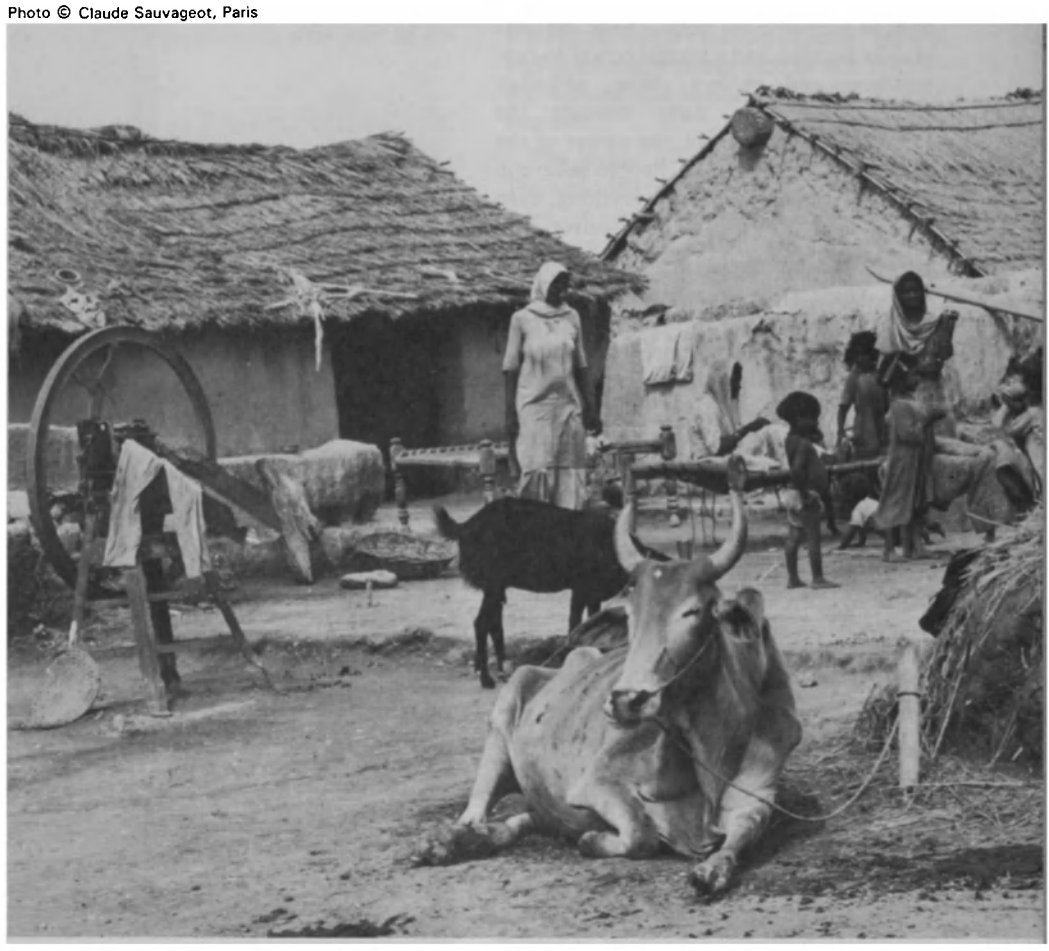
by Prafulla Mohanti

THE name of my village is Nanpur. It is one of India's 500,000 villages and stands on the bank of the river Birupa in the Cuttack district of Orissa. It is part of a group of villages with a central market place at Balichandrapur, three kilometres away, where there is now a bank, a police station and a post office. The village is connected by road with Cuttack, 48 kilometres south-west, the commercial centre of the State.

Nanpur has a population of about 3,000 living in six settlements separated by mango groves and paddy fields. Each settlement is inhabited by one particular caste. Caste is the most important feature. It defines a person's place in the village and the work he is expected to do. One is born into a caste and it cannot be changed. ▶

PRAFULLA MOHANTI *was born and brought up in Nanpur, the Indian village he describes in this article. He won a scholarship to study architecture in Bombay and from there went to England in 1960 to work as an architect. He is now a painter and writer. His paintings have been shown in many parts of the world, including Europe, the US and Japan, as well as India. He is the author of* My Village, My Life, *a portrait of his village which has been translated into Japanese, Norwegian and Danish. His film,* My Village, My Life, *was shown on BBC TV during the 1982 Festival of India in the UK.*

Photo © Claude Sauvageot, Paris



Rice is the main crop in this traditional Indian village of the Punjab. In foreground, one of the humped brahman or Zebu cattle which are common in this region. They are considered sacred by the Hindus.

▶ Traditionally there are four castes—Brahmins, the priests; Kshatriyas, the warriors; Vaishyas, the businessmen; and Sudras, the servant caste. But over the years there have been many sub-castes relating to professions. There are Brahmins, Karans—the administrators—farmers, barbers, astrologers and Harijans, formerly called Untouchables. The villagers are mainly farmers and craftsmen. Each craft is the property of a particular caste and together they form the village community.

The villagers of Nanpur are Hindus. They are religious. They believe in God and his many incarnations. For them He is everywhere, in a man, in a tree, in a stone. According to Arjun Satpathi, the village Brahmin, God is light and energy, like the electric current. To him there is no difference between the gods of the Hindus, Muslims and Christians. Only the names are different.

Every village has a local deity. In Nanpur it is a piece of stone in the shape of a shiva lingam. He is called Mahlia Buddha. He sits under the ancient *varuna* tree protecting the village. Kanhai Barik, the village barber, is the attendant to the deity. Kanhai, before starting his daily work, washes the deity, decorates it with vermilion and flowers and offers food given by the villagers. Clay animals are presented. It is believed that the deity rides them during the night and goes from place to place guarding the village. Mahlia Buddha was donated to the village by the barber's great-great-great-grandmother, so only his family has the right to attend to the deity. In the old days Mahlia Buddha had a special power to cure smallpox and cholera. Now, although modern medicines have brought the epidemics under control, the power of the deity has not diminished. People believe in him and worship him for everything, even for modern medicines to be effective.

Religious festivals provide entertainment. There is one almost every month. The most enjoyable is the Spring festival of Holi when people throw coloured powder and water on each other as an expression of love. As the cuckoo sings, hidden among the mango blossoms, the villagers carry Gopinath (Krishna) in a palanquin around the village accompanied by musicians.

There is no television, but some villagers have radios. Listening to film music is popular. Snake charmers, acrobats, puppeteers and wandering singers come visiting during the dry season. A wave of excitement goes through the children when they arrive.

Every villager has a *jatak* (horoscope) which is also the birth certificate inscribed on a palm leaf by Dharani Naik, the village astrologer. He is consulted for everything—if the planets are favourable and the auspicious days for starting a journey. There is a saying in Oriya, "Tuesday night, Wednesday morning, wherever you go you receive good luck".

People believe in *karma* (fate) and the cycle of rebirth. This helps them to accept their situation. Padan is the only dwarf in the village and is popular, despite his disability. He is twenty-seven and runs a tea stall in the market place. He recently married another dwarf from a distant village. Padan believes he is a dwarf in this life because of his actions in a previous incarnation.

The houses are built of mud walls and thatched roofs with a central courtyard which is private and provides shelter from the sun. Every house has an altar with a *tulashi* plant (sacred basil). This herb is so valuable for its medicinal properties that it is worshipped as a goddess.

The villagers decorate the walls and floors of their houses with rice paste for festivals and ceremonies. The lotus is the main symbol. At the harvest festival it is painted with stylized footprints to welcome Lakshmi, the Goddess of Wealth.

Marriages are arranged by parents and the bride and bridegroom must belong to the same caste. The horoscopes are shown to the astrologer, who draws diagrams and forecasts their compatibility. The girl's father has to give a dowry, although it is forbidden by law. The bride must be a virgin.

The role of a woman in Nanpur is that of a mother. A house is not a home without a child. People live in joint families and family life is strong. She has the responsibility of managing the household. If she does it well and brings prosperity, she is compared with Lakshmi, but if she destroys its unity she is compared to Kali, the Goddess of Destruction. But her duty is not complete until she has produced a son, essential for the family to continue.

The women in Nanpur worship Satyapir, a Hindu-Muslim god, to bless them with sons. "Satya" is the Hindu part meaning "truth", and "pir" in Islam means "prophet". It was a deliberate attempt to bring the two communities together through religion. There is a large Muslim settlement three kilometres from Nanpur and in a village on the other side of the river a single Muslim family lives surrounded by Brahmins. In spite of Hindu-Muslim ten-

These village girls are among the thousands of pilgrims who flock from the surrounding countryside to the annual religious fair at Pushkar, a town, lake and pilgrimage centre in India's Rajasthan State. The principal temple and lake are dedicated to the god Brahma.

Photo © Claude Sauvageot, Paris

sions in other parts of India, the atmosphere around the village has remained peaceful.

A woman without a husband has no place in the village. Widows are not allowed to remarry. They lead very austere lives. When their husbands die they break their glass bangles and stop wearing the vermilion spot on their foreheads. The attitude of the other women makes them feel isolated. They are not invited to take part in auspicious ceremonies as it is considered they may bring bad luck.

There is a great respect for education. Children start going to school at the age of four. This begins at the *chatshali*, the nursery school, which is run by a villager on his verandah. I remember my first day. I took a plate containing rice, a coconut and money and presented it to the teacher. He blessed me by gently stroking my outstretched hands with his cane. Then he took my hand and with a piece of clay chalk helped me to draw three circles on the mud floor. They are Brahma, Vishnu and Maheswar, the Hindu Trinity. Brahma, the Creator, Vishnu the Preserver and Maheswar, the Destroyer. The Oriya script is round and practising these circles helps to develop good handwriting. The children are told stories to form their character—to be kind, noble and hospitable.

In my childhood there was no primary school in Nanpur and I walked to the adjoining village of Kusupur, over a mile away. Now the villagers have built one themselves without any government help.

Photo © Prafulla Mohanti, Nanpur, India

The market place in Nanpur.

The school starts with a prayer acknowledging the presence of God in nature. The children sing, "Why should I be afraid of telling the truth? Even if I have to die, I must tell the truth. O God, please teach me this. I need nothing else."

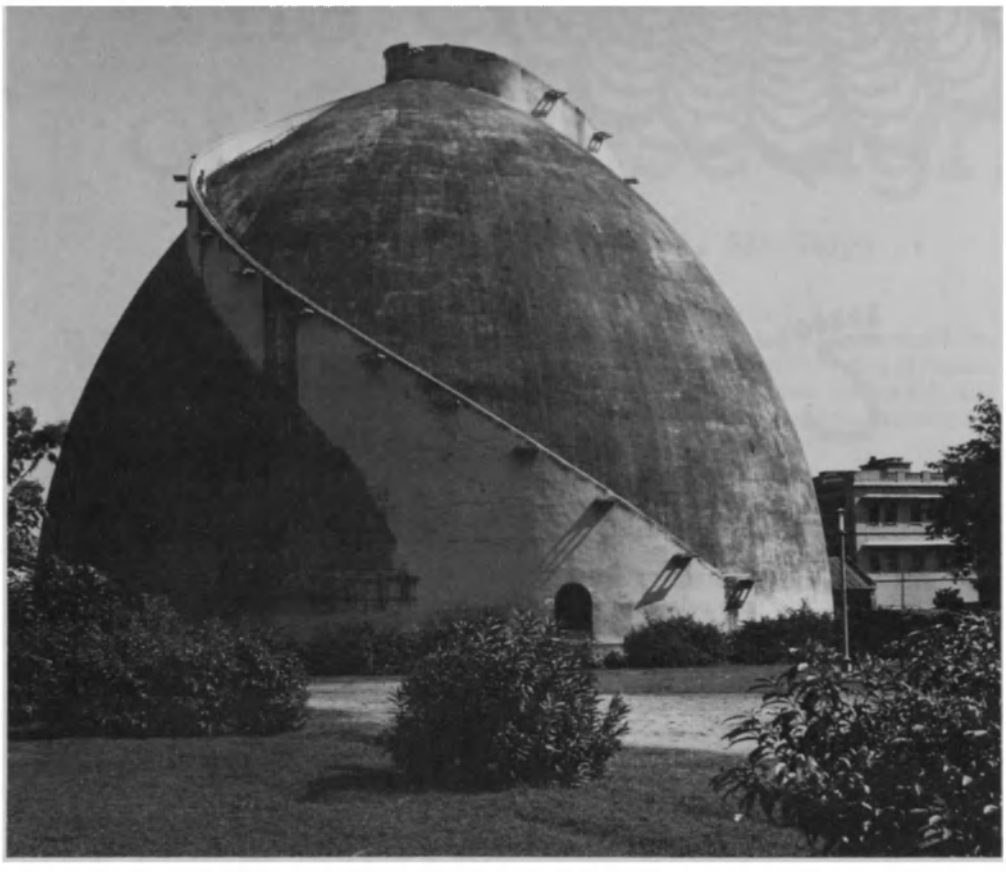
The villagers also built a high school at Kusupur and the children took part in the construction of the building. A private college has started in Balichandrapur.

The aim of education is to get an office job, to work as a clerk sitting comfortably under a fan. The system goes back to the days of the British Raj. There is no guidance for the choice of a career and there is no social welfare scheme in India. Several highly-educated young men sit at home doing nothing and become a burden to their families.

The dignity of labour is not understood. The educated feel it is inferior to do manual work. A typical example is Rabi Jena, the young son of a Harijan. His father has no land and worked hard as a tenant farmer to educate him. But he was unable to pass his matriculation exam. He was desperately in search of a job and a friend offered him one at an officers' club in the steel town of Rourkela. He worked as an attendant and at times was required to clean dishes and serve tea. He refused and left as he considered it beneath his dignity. He is looking for another job but there is mass unemployment everywhere.

The staple food for the villagers is rice. The poor eat it with spinach and the better-off with dal, vegetables and fish, caught in the local rivers and ponds. Occasionally goat meat is eaten but it is a luxury. Eating beef is unthinkable for a Hindu as cattle are considered sacred. The cow is called "cow mother" because the children drink her milk, and the bull is holy because Lord Shiva rides on him. Only oxen are used for ploughing the fields and pulling carts.

The main crop is paddy (rice). It is planted in June, just before the monsoon and takes four months to grow. It is harvested in November. A successful crop ▶



Curved contours of a grain silo dwarf nearby buildings in Bihar State, India, near the border with Nepal.

Photo © Claude Sauvageot, Paris

▶ brings happiness to the village.

There is no hospital in the village and the nearest health centre is four miles away. There is no ambulance service and patients have to be carried there, whatever their condition. The consultation is free, but the villagers have to buy their own medicines, which are expensive. People complain that they have to spend half a day to get only a piece of paper, the prescription.

Young doctors are reluctant to work in the villages because there is no money. But Basant Jena is an exception. He is from Nanpur and after qualifying as a doctor opened a surgery at Balichandrapur. He is overwhelmed with the problems. He treats hundreds of patients daily but feels helpless. The illnesses are caused by poverty, which cannot be cured by medicines.

Many villagers turn to the quacks, who combine modern medicines with homeopathy and herbal remedies. Anyone with a little knowledge can practise as a doctor and modern drugs are freely available without prescription.

In my childhood the village was totally isolated. It took one whole day to reach Cuttack, the nearest town. One had to walk 20 kilometres to the railway station and there were two rivers to cross by boat. With only two trains a day, if you missed one there was a wait of twelve hours for the next. But in 1968 a motor road cut across the village to carry iron ore to the port of Paradip, 96 kilometres away. For the first time travel was made easy and the village was connected with the outside world. But the road has brought noise and pollution. I am amazed how the villagers have got used to it. When I was a child there was no noise apart from the barking of a dog or the howling of a jackal at night. The only other noise was produced by the rhythmic pounding of rice. That worried me when I was preparing for my matriculation exams. I told my mother and the pounding of the rice stopped in my part of the village so that I could concentrate on my studies.

Out of my twenty childhood friends, two died of cholera, one died of typhoid, three were disfigured by smallpox, five girls got married and left the village, six boys went to towns to find work. Only three stayed in the village; one is unemployed and the other two work as farmers.

I wanted to be a doctor to help the village but could not get into medical school. By chance I won a scholarship to study architecture in Bombay. That changed my life.

The village has also changed. Electricity has come. Epidemics are under control, but there is no proper water supply or sanitation. Education has helped to break down caste barriers. The member of parliament for my village is a Harijan. Family sizes have increased but food production has not kept pace with it. Floods, droughts and cyclones occur every year, causing suffering and malnutrition. This year all three have occurred in succession and the people who were able to smile only last year have turned into skeletons.

But in spite of poverty and suffering there is a strong desire to survive and the villagers have a natural dignity. Although they feel a part of nature they know they have no control over it. Acceptance brings contentment.

Once I leave the village I want to go back to it, its love, beauty and simplicity. Often I wonder what will happen to it.

■ **Prafulla Mohanti**

Lotus symbol with stylized foot-prints. At harvest time the villagers of Nanpur in eastern India paint such designs to welcome Lakshmi, the Goddess of Wealth.

Drawing © Prafulla Mohanti, Nanpur, India

Photo © Claude Sauvageot, Paris

Cobs of maize dry in the sun at Kunning in China's Yunan province. In southwestern China maize is an important crop grown on dry and unterraced lands.

The changing pattern of Chinese agriculture

by Ma Shiyu

WITH her vast territory (9,560,500 square kilometres) and enormous human resources, China has a long tradition of intensive farming. More than 800 million of her total population of over one billion work on the land, and this abundance of labour has meant that mechanization of agriculture has proceeded cautiously.

In recent years new trends have emerged. New rural policies adopted in 1979 have resulted in modernization based on diversified development of agriculture, animal husbandry, fisheries and sideline enterprises which produce basic goods such as bricks, bottles and low-cost clothing and employ about 30 million rural workers.

Perhaps the most important change has been the introduction of the "responsibility system" which has led to a remarkable increase in farm productivity, even in regions where agriculture is most backward, and the last three years have been notable for bumper harvests.

In the past, the method of sharing out the fruits of the harvest caused dissatisfaction among the peasants who felt that their labour was not being fairly rewarded; productivity remained stagnant or even decreased.

Under the new responsibility system each farm household contracts to farm a certain area of land and to deliver a part of the crop to the State and to the commune, keeping whatever they grow above the quota. This means that each farming household is free to manage its work itself and to assume sole responsibility for its profits or losses. At the same time land and the means of production remain the property of the collective body.

The new system is already evolving. Agricultural co-operatives have been established which handle specialized production, such as raising ducks or fish, or offer specialized services, such as sugar refining and transport services.

Never before have so many Chinese peasants had so much money. Today, more than 60 per cent of all the nation's cash is circulating in the countryside. By the end of 1982, peasant families had 28.2 billion *yuan* ($15.2 billion) on deposit in banks, an average of more than 30 *yuan* for every man, woman and child in the rural areas. To this must be added the 32.3 billion *yuan* deposited by rural collectives, factories and enterprises, making a total in rural banks of 60.5 billion. Five years ago it was only 25 billion.

According to preliminary figures released by the State Statistical Bureau, the cash income of peasants increased at an average ▶

MA SHIYU, *of China, is a contributor to the English language newspaper* China Daily.

annual rate of 19.4 billion *yuan* in the four years 1979 to 1982. This is 6.9 times the average annual increase for the twenty-six years 1952 to 1978.

A survey of 18,000 peasant households in twenty-six provinces, municipalities and autonomous regions showed that the number of families with an annual *per capita* income exceeding 300 *yuan* grew from 2.4 per cent in 1978 to 22.6 per cent in 1981, the most well-off families being those with special skills—raising chickens, ducks, fish or bees, or cultivating marketable herbs. The proportion of poor families with an annual *per capita* income below 100 *yuan* dropped from 33.3 per cent in 1978 to 4.7 per cent in 1981.

Chinese peasants spent 148 billion *yuan* on capital and consumer goods and building materials in 1982. This was an 11.8 per cent increase over 1981 and 82.6 per cent over 1978.

As the purchasing power of farming families increases, the demand for industrial products becomes greater and greater. Farm tools and equipment and other aids to production are the first priority, followed by materials for building and repairing houses, with consumer goods third.

Under the responsibility system there has been a change in the pattern of mechanization with a decrease in demand for large and medium-size farming equipment and an increase in purchases of small, semi-mechanized equipment such as 3 to 8 horsepower compact tractors, processing machines, pumps, swathers, windrowers and wheelbarrows. Not only are these small-size machines and implements cheaper to buy and easier to maintain and operate, they also adapt more easily than larger equipment to the varying natural conditions throughout the country and are more in keeping with the size of the household production unit and with the present technical, economic and cultural level of the Chinese rural worker.

Chinese peasant families now eat more rice and wheat than coarse grains and this change in their traditional diet is a clear indication of their improved standard of living. According to the State Statistical Bureau survey grain consumption *per capita* reached 256 kilograms in 1981, with rice and wheat accounting for 67 per cent as against 49 per cent in 1978, the remainder being made up of corn, sorghum, millet and other coarse grains.

The survey also shows an increase in protein intake among rural families. In 1981 *per capita* daily protein intake was 66.82 grammes, 4 per cent higher than in 1978. Average annual consumption of pork, edible oils, poultry, eggs and fish all increased and many peasant families are now raising chickens and ducks for family consumption and sale.

The cost of living in the countryside is lower than in the cities. The majority of rural families own the houses they live in and do not have the burden of rent; they produce virtually all the vegetables, meat and poultry they need and a peasant family with a *per capita* annual income of 200 yuan is therefore considered to be tolerably well-off.

■ **Ma Shiyu**

LAND USE • 1000ha

	1969-71	1974	1977	1980
World				
Land area	13 075 454	13 075 355	13 075 282	13 075 248
Arable land	1 326 023	1 338 577	1 347 931	1 358 431
Permanent crops	87 418	91 014	92 982	93 784
Africa				
Land area	2 966 531	2 966 487	2 966 447	2 966 447
Arable land	153 332	157 557	161 722	163 159
Permanent crops	15 949	16 789	17 694	18 005
N and Central America				
Land area	2 135 594	2 135 594	2 135 581	2 135 581
Arable land	261 387	260 739	262 146	264 999
Permanent crops	5 712	6 099	6 268	6 369
South America				
Land area	1 753 440	1 753 440	1 753 454	1 753 454
Arable land	90 665	96 749	101 002	103 095
Permanent crops	21 063	21 870	22 434	22 646
Asia				
Land area	2 676 958	2 676 922	2 676 891	2 676 872
Arable land	419 225	424 941	426 642	428 405
Permanent crops	24 524	25 800	26 143	26 617
Europe				
Land area	472 825	472 806	472 803	472 788
Arable land	131 173	127 929	127 047	126 647
Permanent crops	14 318	14 591	14 574	14 302
Oceania				
Land area	842 906	842 906	842 906	842 906
Arable land	42 273	42 862	41 872	45 026
Permanent crops	945	961	965	979
USSR				
Land area	2 227 200	2 227 200	2 227 200	2 227 200
Arable land	227 967	227 800	227 500	227 100
Permanent crops	4 908	4 904	4 904	4 866

Source : *FAO Production Yearbook* (1981)

Arable land: Land under temporary crops, temporary meadows, land under market and kitchen gardens, and land temporarily fallow or lying idle.

Land under permanent crops refers to land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee and rubber. It includes land under shrubs, fruit trees, nut trees and vines, but excludes land under trees grown for wood or timber.

Among the oldest oilseeds grown by man, sesame is one of a number of crops cultivated in the north China plain. Above, threshing sesame plants near Nanking.

Photo Paolo Koch © Rapho, Paris

A woman farmer carrying a bunch of lotus leaves and roots along a road near the Huang-Shan commune, some 40 km from Canton. The leaves are used as pig feed.

Photo FAO, Rome

This painting was executed by a folk-artist of Jinshan province, near Shanghai, where a group of country people, both young and old, portray scenes from their everyday life in fresh and brightly-coloured works of art.

Photo Yolanda Saul © Art Cultural, Highland Park, USA

The kolkhoz of Chtcherbani

by Yevgeny Novikov

DECADE after decade, century after century, drought has struck the steppelands on the shores of the Black Sea with inexorable regularity. And although the *chernozem*, the rich black earth of this region in which the ancient village of Chtcherbani is situated, is capable of producing abundant harvests, four years out of ten the vital element of water is lacking. In other words, this is an area typical of the regions of "risk agriculture" in which the Soviet Union produces three-quarters of the cereals it needs.

The village of Chtcherbani is older than most towns in the Soviet Union. Two and a half centuries ago, the Cossacks responsible for the defence of Russia's southern borders established their winter quarters there. Between campaigns the Cossacks returned to Chtcherbani there to live the ordinary life of peacetime, living in their own houses with their families, tilling the land and raising sheep. In the middle of the last century some 1,600 people lived at Chtcherbani, approximately the same number as today.

The present-day inhabitants of Chtcherbani are organized in a *kolkhoz*, one of the co-operative agricultural enterprises operated by peasants typical of Soviet agriculture, which, with the *sovkhozy*, the large State-operated farming units, produce ninety per cent of the agricultural output of the Soviet Union.

In conformity with the regulations, any inhabitant of the village aged 16 or over who is willing to contribute his labour can become a member of the *kolkhoz*. The *kolkhoz* has a permanent allocation of 10,000 hectares of land and is run by a chairman and a committee elected for a period of three years.

For the past twenty-five years, the general assembly of the *kolkhoz* has regularly re-elected Nikolai Riabochapka as chairman. Well-built, with greying hair and a superb Cossack moustache, Nikolai Riabochapka strikes one as an energetic, outgoing man.

"The *kolkhoz* has 6,500 hectares of arable land of which a third can be irrigated", Riabochapka explained. "Each year it produces 6,000 to 10,000 tons of cereals, 9,000 to 12,000 tons of vegetables, 700 to 850 tons of sunflower seeds, nearly 1,200 tons of meat, over 3,000 tons of milk, 30 tons of wool and more than 1,500,000 eggs. The greater part of this production is sold to the State and earns for the *kolkhoz* a gross revenue of 5 million roubles (at the official rate, one rouble equals $1.40).

"Our dealings with the State are based on the national Five-Year-Plan", he added. "In determining our annual and our five-year production we start by negotiating with local officers of the Plan the type and quantity of products we shall be able to sell them. On the basis of this production forecast, the *kolkhoz* is allotted credits and can buy agricultural machinery, fuel, fer-

YEVGENY VLADIMIROVICH NOVIKOV *is a Soviet journalist specializing in questions related to agricultural and agro-industrial development and social development in rural areas. He has published many articles and essays on these subjects in the Soviet press and elsewhere.*

Photo © *Soviet Union* magazine, Moscow

Right, a peasant family in the Lithuanian SSR at work on the family plot on which they grow forage for their livestock. Some 40 per cent of the cost of building their comfortable, traditional style house (in background) was borne by the *kolkhoz* of which they are members. Over the past 15 years, housing equivalent to a surface area of 500 million square metres has been built in the rural areas of the USSR.

Photo M Nachinkin © *Soviet Union* magazine, Moscow

Above, this aerial view of a Soviet *kolkhoz* gives an idea of the extent of its lands, a factor which favours the use of large scale agricultural machinery. Today, the Soviet Union has a striking record in agriculture ranking among the world's top five producers for twenty-five different food products. This is an impressive achievement when it is remembered that, during the Second World War, occupying forces ravaged the land and slaughtered 60 million head of cattle. The Second World War cost the USSR more than 30 per cent of its national wealth—1710 towns and more than 70,000 hamlets and villages were partially or totally destroyed and tens of thousands of *kolkhozy* and *sovkhozy* were devastated.

tilizers and other industrial products."

In theory the *kolkhoz* is independent, but its economic interests are so closely linked with those of the State that each is dependent on the other, a situation which, according to Riabochapka, is on the whole favourable to the members of the *kolkhoz*. For example, they have a guaranteed market for their products at a purchase price which makes it possible for them to make a profit.

During the period 1976 to 1980, the purchase price fixed for cereals was such that on two occasions the *kolkhoz* made a profit of over 100 per cent; only in the bad year of 1980 did the profit drop to 60 per cent. Sunflower seeds have proved to be a successful crop and members of the *kolkhoz* have also done well with their sales of vegetables, although in recent years milk and meat production have resulted in a deficit. The overall profitability of the *kolkhoz* varies, but, even in the worst years of drought, it has never fallen below 12 per cent.

Improvement is expected in the return on stock-farming since the State has raised the purchase price of milk and meat throughout the country with effect from January 1983. Each year the State puts aside about 16,000 million roubles for the improvement of purchase prices and for the subsidies paid to the less profitable production units. A feature of the Soviet economy is that purchase prices are not reduced in good years and this stimulates the sale of surplus production which is fixed in proportion to average output over the previous five years.

According to Nikolai Riabochapka, the agreements negotiated with the State have a stabilizing influence on the production policy of the *kolkhoz* which cannot be changed abruptly from year to year. But to fulfil its commitments, the *kolkhoz* is free to make use of the means at its disposal as it thinks fit.

In Tsarist Russia, vast areas of the finest land belonged to the great landowners, to members of the imperial family, to speculators and to non-working landlords; these between them owned 150 million hectares. A further 80 million hectares belonged to the *kulaks*, or wealthy peasants, who represented a sixth of all landowners. This left only 135 million hectares for more than 20 million poor peasant households.

Generally speaking, the ordinary peasant's plot of land was insufficient to ensure his family's subsistence. In years of normal harvest about half the peasants of Russia had insufficient wheat to last them through to the next harvest. They suffered from hunger in their millions, whilst the landowners and the *kulaks* sold their wheat abroad. At that time Russia was the world's largest exporter of grain.

After 1917, a decree of the young Soviet State abolished the right of private ownership of land, the properties of the imperial family and other landowners were confiscated and their exploitation was entrusted to those who were willing to work them themselves, all hired labour being forbidden. ▶

▶ Nevertheless, the peasants still experienced considerable difficulty in getting the best from the land. Bearing in mind that each family produced as many as ten or more different types of crop, it is easy to imagine how small a plot of land was devoted to each crop. The only way out of this situation seemed to be the introduction of collective agriculture by the creation of a system of co-operative production.

The first *kolkhoz* was formed at Chtcherbani in 1924 and consisted of eleven poor families out of a total of over 300 in the village. Although the authorities provided credit, seeds and technical assistance and organized centres for agricultural machinery and tractors, it took five years to overcome the peasants' mistrust of co-operative ventures. By 1929, the poor peasants of Chtcherbani had organized six *kolkhozy*, each of which managed 1,500 hectares of land. Within a year they sold to the State 14.7 tons of wheat, an achievement which was recognized as a considerable success.

After the setback of the enormous damage suffered during the Second World War, the Soviet economy resumed its rapid growth. Statistics show that at the beginning of the century three-quarters of the working population of Russia were employed in agriculture. Today the proportion of agricultural workers is four times lower, while gross agricultural production is four times greater.

Average annual production of cereals rose from 72.5 million tons in 1909-1913 to 205 million tons in the latter half of the 1970s. Since then production has risen to 0.8 tons per head of population, but this is still insufficient. It is estimated that a production of one ton per head of population is needed to meet normal cereal requirements and to ensure adequate supplies of stock-feed concentrates.

Since the founding of the Soviet Union, production in other major agricultural sectors has also increased—production of milk and meat has at least trebled, production of vegetables has increased five times, of eggs six times and of cotton fifteen times. Today the USSR is the world's leading producer of wheat, sugar beet, sunflower seed, cotton, flax, potatoes, milk and butter.

The rate of growth in production of foodstuffs has consistently been greater than the rate of growth in population, which has increased by 35 million since 1965; but this in turn has been outstripped by the growth in individual incomes as a result of which it has been necessary to import some agricultural products to meet the subsequent increase in demand. A new food programme has now been established aimed at achieving an effective balance between supply and demand and satisfying the needs of the population.

Agricultural productivity in the Soviet Union is often assessed in comparison with that of other countries with advanced agricultural economies, but it is too often forgotten that Soviet agricultural workers have to contend with unfavourable natural and climatic conditions.

In the USSR, nearly 60 per cent of agricultural land and 58 per cent of arable land is situated in areas liable to drought or semi-drought conditions; 40 per cent of the arable land receives less than 400 mm of rain a year. Less than 1.1. per cent of agricultural land is located in areas benefiting from optimum growing conditions.

Each peasant household supplements its income by cultivating its own individual plot of land which may be as big as half a hectare. At Chtcherbani, for example, the 581 households all cultivate their family plots which produce enough fruit and vegetables to meet their own needs and provide a surplus for sale at the local market. The *kolkhoz* also offers each household, at virtually cost price, chickens, pigs and fattening cattle which they are encouraged to raise on their individual plots. Feed and veterinary care and advice are also provided.

The Chtcherbani *kolkhoz* includes about a hundred specialists such as agronomists, stock-breeding experts and mechanical engineers. At the beginning of the century, the only educated people in a Russian village were the priest, the landowner, the health officer, the teacher and the land surveyor. A good three-quarters of the peasants could neither read nor write.

In 1890, a primary school was opened at Chtcherbani, but, as a representative of the local authorities declared: "In such a poverty-stricken village the indigence of the people is such that they cannot send their children to school for the simple reason that they haven't the wherewithal to clothe them." Today, two-thirds of the working population of the village have a complete or partial secondary or higher education. One family in three has its own library and the village's two public libraries contain some 18,000 books.

In one of these books an extract from a document dating back a hundred years catches the eye. "The inhabitants of the region have reached such a degree of poverty that immediate aid is essential. And this aid should be an outright gift, since a loan would only add to their already huge debts which they will never be able to repay..." The value of this document is that it acts as a kind of benchmark for the villagers, a criterion by which to evalue and appreciate the changes that are apparent in their lives today.

■ **Yevgeny Novikov**

In most *kolkhozy*, the Cultural Centre, with its artists' studios, cinema and concert halls, its libraries and its clubrooms, is the focus of intense social and cultural activity. The spread of ownership of television sets and other audio-visual equipment has not reduced the frequency of peasant family visits to theatres and museums. Below, *Cotton-picking in Armenia* (1931), by the Soviet artist Paul Kuznetsov.

Photo all rights reserved

Peasant values

An interview with French historian Emmanuel Le Roy Ladurie

• *Courier.* In one of your books, you analyse a triangular relationship between peasant, land and lord. How has this relationship evolved since the Middle Ages, especially in modern times?

Emmanuel Le Roy Ladurie. The relationship is certainly very ancient. In some respects it may, at least insofar as France, or Gaul, is concerned, go back to the Celtic chieftains of the Iron Age, who were perhaps "pre-lords".

This "triangle" implies that the lord has the higher title to the land, that he may even enjoy property rights over men, in which case they are serfs; but this is not always the case. It implies that these men, the peasants, have a certain "possession" of their land in common with the lord. Their connexion with the lord is expressed in the fact that they pay him dues in cash or in kind. They obey his orders. They sometimes, though not always, perform statute labour on his land. This is, more or less, the nature of the land-peasant-lord triangle. It has varied. During the age of Charlemagne in Europe—things may have been different elsewhere—it required the peasants to perform a large amount of statute labour for the great lords, notably the great ecclesiastical landlords. From the eleventh century on there is far less statute labour—only a few days a year; there are above all payments in corn, in grain, and later in money. Finally, starting with the French Revolution, the lord becomes simply the owner of a great estate, and his links with the peasants continue to be links of patronage, protection and paternalism, but the peasants are no longer bound to pay him dues even if they recognize his leadership and still feel a certain respect for him. Sometimes they rebel against him. In Europe today the feudal lord is a figure of the past, but there are still great landowners to whom the peasants may sometimes feel bound by a certain link of deference.

• *Courier.* How do you see the reciprocal influence between rural and urban civilization in Western Europe today?

ELRL. Urban civilization has destructive aspects. In a sense it has destroyed many things, if only through the exodus from the countryside. Villages have emptied; the peasants who have left the land have done so to look for a more agreeable existence and in many cases they have found one. There is no reason to idealize country life in olden days, but the result of this exodus has often been to impoverish social life in the villages. On the other hand, urban civilization—city culture—has introduced modernity into our villages. The peasant—in France, in Western Europe—has generated an increase in productivity which has been very swift and much greater than in industry. It is true that agricultural productivity was initially at a far lower level. The country people, in various regions, were traditional. But now many of them have become *entrepreneurs*, often burdened with a heavy load of work; no question of a thirty-nine-hour week for them.

• *Courier.* What about the influence of mass culture, the mass media? How do you see the changes in what might be called the peasant imagination? ▶

EMMANUEL LE ROY LADURIE *is a French historian and a Professor at the* Collège de France. *He is the author of a number of books including* Montaillou, Village Occitan *(1975),* Paysans du Languedoc *(1977) and* Carnaval de Romans *(1979).*

Troglodyte dwellings near the city of Guadix, Andalusia, southern Spain.

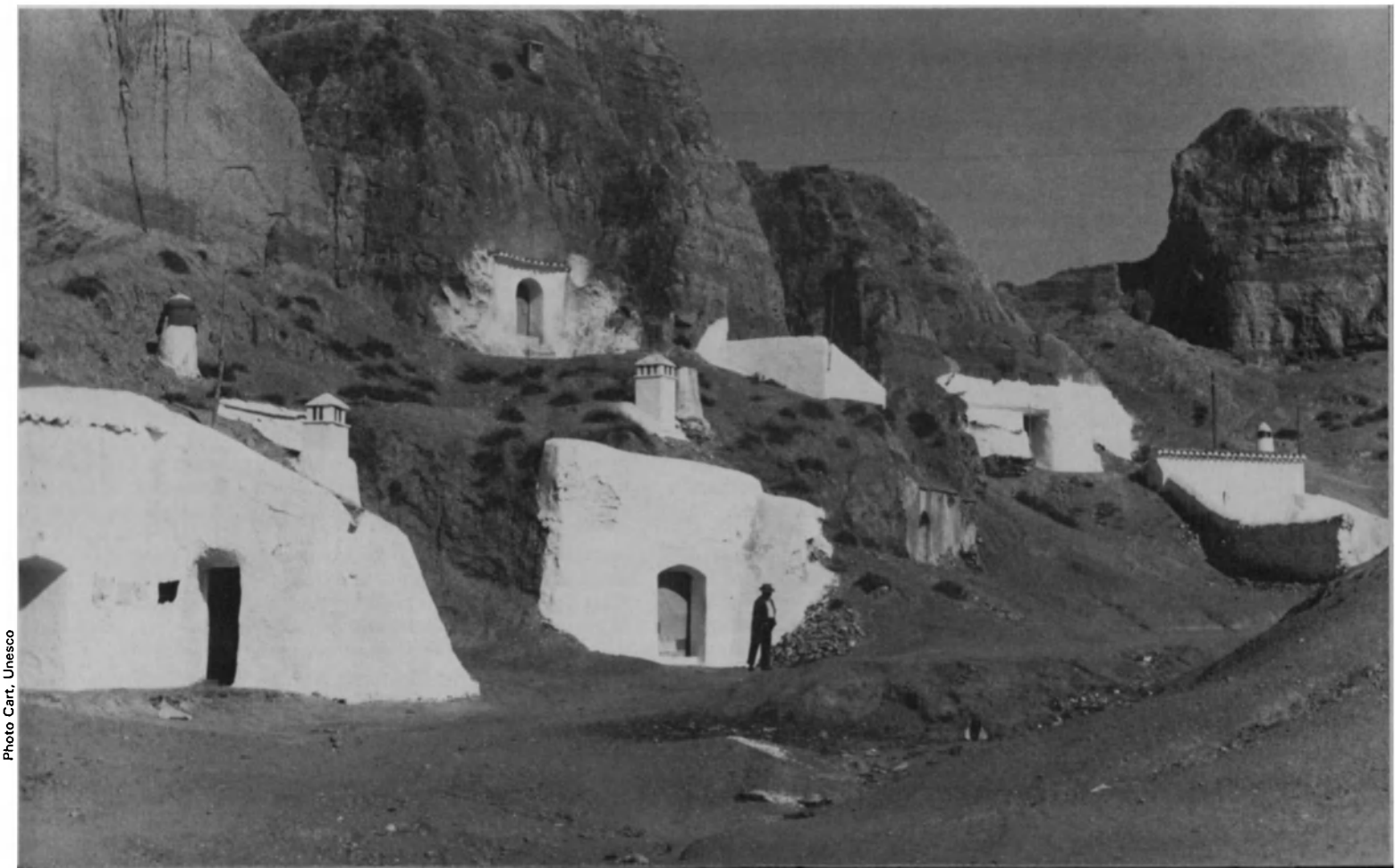


Photo Cart, Unesco

Photo Janine Niepce © Rapho, Paris

Harvest-time at Saint-Loup-de-Naud, to the east of Paris.

▶ ***ELRL.*** Strictly speaking, the peasant imagination has virtually ceased to exist today. In any case, it was always linked to urban culture. Even what is called rural folklore was dependent on a comparable folklore of the towns. One example of this is the religious festivals which in "peasant" custom often derived from Christian festivals as they were celebrated in the towns. It is true that witchcraft in the countryside is an older phenomenon. It may go back to certain pre-Christian religious forms but in any case it has become extremely marginal. Today the fact remains that the peasant is by definition more closely linked to nature (though he sometimes destroys it with pesticides), and relates to the forest and to animal life in ways which are much more direct and vital than those of the city-dweller.

As for religion, it is a more living force in the countryside, where traditional catholicism in many cases still plays a more important role than in the towns where, nevertheless, it has not totally ceased to exist. Local *patois* have in many cases disappeared, notably in France. They scarcely exist except in the form of an accent, and this is dying out... Dialects are still used by a few old country people and... on the campus by trendy students. It is true that in the case of France the propagation of the national language has perhaps been more forceful and determined than elsewhere... In Switzerland on the other hand dialects are still used in the villages and even in the towns, at least in the German-speaking cantons, but not in French-speaking Switzerland. Furthermore, peasants are fully involved in the audiovisual and televised culture which they share with the towns. To round off the picture, let's not forget the young rural-dwellers thundering through the countryside on their motorcycles.

In France and in other European countries, many peasants fifty years ago achieved an extremely high level of basic culture, thanks to good primary school teachers. Today, as in the towns, there has been a decline. On the other hand, the technical and farming culture of country people has progressed. They now have a mastery of modern technology.

• *Courier.* **From an anthropological point of view, do you consider this influence to be a source of enrichment of peasant culture or as an erosion, a loss of certain values?**

ELRL. I think the effects are very different in nature. Again, it would be wrong to feel an unqualified nostalgia. Immense gains have been made from the point of view of social improvement. But the problem is that each step forward, each individual benefit enjoyed by a person who leaves the village, often causes an erosion, if not the destruction, of the village community itself, because of the exodus from the countryside.

This is particularly true in the case of villages which are remote from the towns. As soon as you get a little closer to the towns, a certain suburbanization appears, with the result that the village is still a living place in appearance, but in fact the community is no longer the same. Around 1850-1880, a part of the village community achieved a certain level of culture, expressed in the form of craftsmanship, modes of dress, and the propagation of an oral culture, notably during the *veillées,* the social evenings spent with neighbours during the winter months. There is absolutely no reason to idealize that. The overall situation remained poor... The folk stories transmitted by word of mouth were, for example, in many cases simply a repetition of what such and such a villager had read in the tales of Perrault or other anthologies. However, it is certain that between 1850 and 1983 some ground has been lost.

Ultimately, the problems are perhaps not very different from those you find in the towns; the new audiovisual media are jeopardizing reading, which was one of the great evening pastimes of a (small) minority of peasants. Not that one should paint too sombre

a picture: in the last decade or so the reading habit is again spreading in France, perhaps in the country areas.

Nevertheless, there is still a strong feeling of frustration. I am not in any sense a countryman, although I was born in the country. But recently I took part in a meeting of writers from rural areas who actually were farmers: they were novelists, poets, and so on. They gave the impression that they had a very big inferiority complex, a feeling of deprivation and regret in relation to urban culture, and of being despised. Sometimes, alas, this is so; but perhaps they were exaggerating other people's disdain for them.

• *Courier.* **And is that literature still deeply rooted?**

ELRL. It is often produced by old people, sometimes by women, young women. I won't say that this peasant literature is outstanding, but it is evidence of an interesting initiative. It was displayed at this year's Paris Agricultural Show. Publication at the author's expense is a practice which provokes amusement and irony in the average writer. Among these people, however, it is highly thought of. They have no contacts with Paris publishers; they are proud to pay for the publication of a book themselves and then to sell it on their own initiative, just as they would sell fruit or cheese. And so it is not at all the same value system as in the towns. In a sense it is a marvellous thing to see someone finance a work that he has written and then go off and sell it as he would the products of his farm.

• *Courier.* **Among the regions of France you have studied, are there some where peasant life is more strongly marked, with more original values?**

ELRL. The phenomenon is ambiguous. On the one hand in modern areas like the Paris region, farmers are technicians of the first order but they no longer have much in common with the peasants of former days. They are not very interested in the culture of their ancestors, which they consider to be a thing of the past. Contrariwise, in the poorer, traditional regions, this traditional spirit sometimes takes the form of a feeling of poverty or injustice. One day I met a young countrywoman who kept a very strong connexion with the ancient rural culture; her technique for making the Yule log corresponded exactly with practices in the south of France a century and a half ago. And around 1920 she had heard what is known as the wild hunt, the rushing of the souls of dead children above the forest. That is a very old myth. She told the story with great conviction. She was close to an ancient rural culture of the Middle Ages or the Renaissance, which was once common to the towns and the countryside. Without being in real need, she was nevertheless poor. Her sons were unmarried. She gave the impression that she was not profiting from a certain number of the benefits of modern civilization. Survivals of this kind do not always mean happiness.

• *Courier.* **Is it possible to see traces of rural cultures in the culture of certain provincial towns? I imagine that in Paris it is rather difficult to find such traces.**

ELRL. There were still cows in Paris fifty-odd years ago. Many workers in medium-sized towns still have a vegetable garden. The output from these gardens is quite substantial; this is a continuing link with agricultural life. In addition, a number of customs have survived to a marked degree, especially as regards modes of inheritance. A French historian and ethnologist named Lamaison has carried out a survey among notaries. Judging from the map of France he has drawn up, it seems that the custom of organizing the inheritance in favour of one child rather than several descendants, in short the practice of not dividing up the goods after death in accordance with a will, still bears a great similarity in certain areas to what was going on even before the French Revolution. This is permanence!

• *Courier.* **Have any beliefs other than Christianity survived?**

ELRL. Yes. Not so many non-Christian beliefs, but others which are on the fringe of Christianity. For example I have noted a certain cult of trees in the Massif Central. In a shrine dedicated to a saint, (Christian) agrarian rites for the fertility of livestock can be seen, and such rites are even practised beside trees which are implicitly believed to be sacred. These practices do not necessarily go back to Roman times; perhaps they simply became established in the Middle Ages or the sixteenth century and have lasted ever since. This doesn't amount to very much. The real continuity is to be found in such rituals as those concerning death and marriage—in Christian usages in the strictest sense. A burial requires, for example, a sense of the sacred, the religious spirit, the intervention of the community... That joins us more to the past in the villages or in small towns than in the big cities. The bonds of the community are necessarily more distended there. ▶

Burning vine prunings, in Provence, southern France.

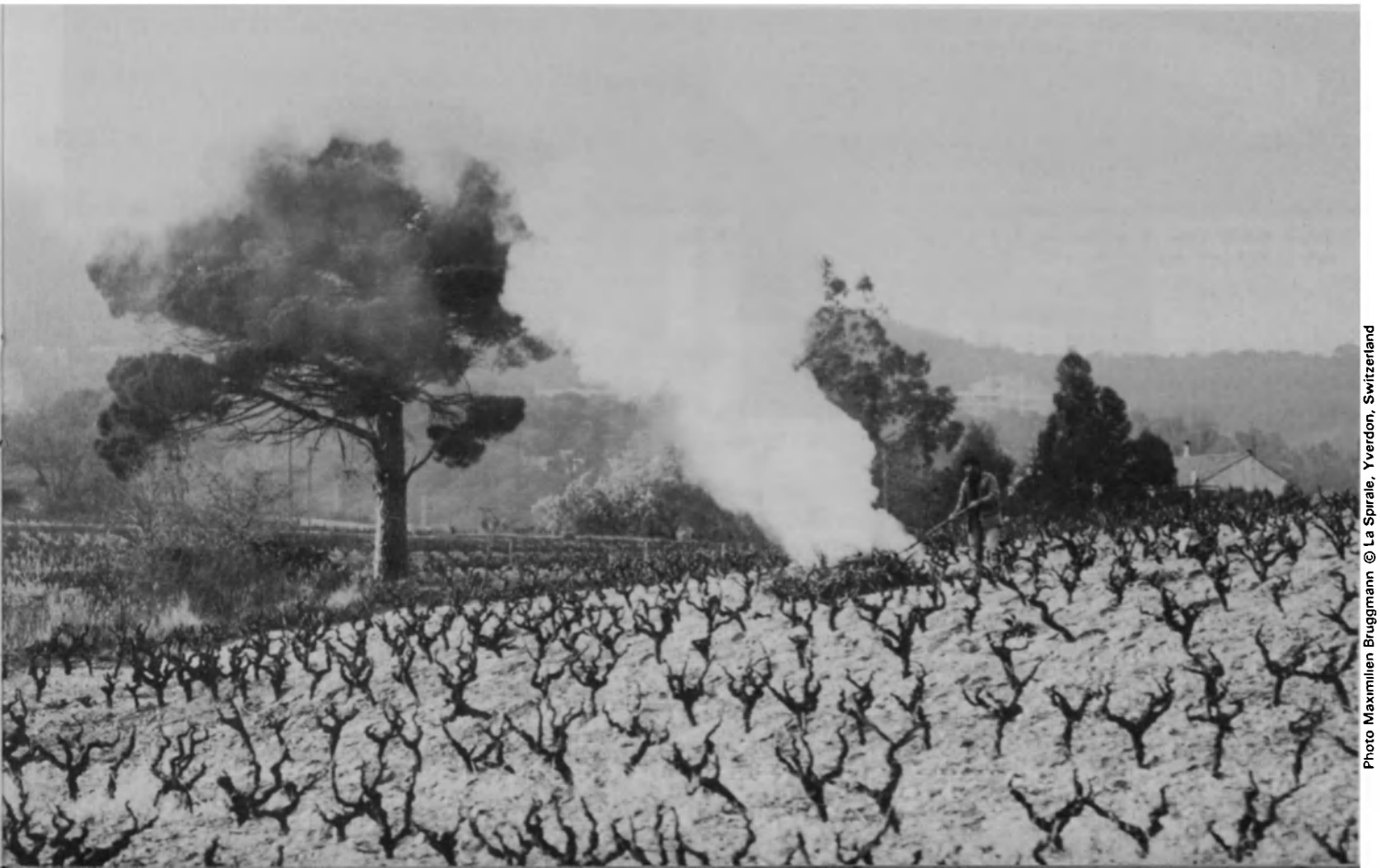


Photo Maximilien Bruggmann © La Spirale, Yverdon, Switzerland

• *Courier.* And do you think that all these vestiges of peasant or rural culture are tending to disappear forever?

ELRL. Not necessarily. Of course only a fairly small minority of the population is concerned. In spite of everything, agricultural production is still vitally necessary. In a sense, French agriculture is in a better state than French industry.

Whatever happens, certain structures will remain. Furthermore, not only the countryside is involved. We mustn't forget the small towns. The percentage of French people who live in small or medium-sized towns of less than 20,000 inhabitants has not greatly changed in the last fifty years. From the point of view of the conservation of a relatively traditional way of life, these small towns and the countryside seem to me to be the repository of a certain continuity.

For better or for worse, some regions of Europe still preserve a traditional way of life. I have visited one of these areas, that of the Pomaks in northeastern Greece, Muslim Slavs who live in a frontier area. There I saw an agriculture comparable to that of the eighteenth century. The slopes continue to be cultivated. The observer feels that this is a way of life which has undergone little change. I suppose that it would still be possible to find a few areas of the same type in Europe.

• *Courier.* In general, do you think that all these phenomena which are eroding an agrarian or peasant culture are common to the countries of Western Europe?

ELRL. I don't know very much about what is happening in the countries of the East, but I think that there are no basic differences between the countries of Western Europe. Modernization and the rapid depopulation of villages are rampant. And in spite of that there is the conservation, not so much of a folklore which would indeed be artificial, but of neighbourly relationships and a certain religious assiduity in many cases... I imagine, for example, that a region like Bavaria, although it is now urbanized, has succeeded in preserving quite a few religious and dialect characteristics... The same goes for certain areas of Italy and Spain... Modernity is not entirely nor necessarily destructive. It can also keep alive a certain nucleus of human relationships. Paradoxically, it is in the regions which are most rapidly becoming depopulated (as in the mountains from which human life is withdrawing, except for skiing) that archaic structures are destroyed. But in the more vigorous rural areas, modernity is, I think, helping to preserve a nucleus of traditions, or of continuity, at least, with moral and religious values, and also community and family ties. ■

The seasons, by Flemish painter David Teniers the Younger (1610-1690).

Photos © National Gallery, London

The world of the midwest farmer

by Don Peasley

AGRICULTURE is the largest industry in the United States, accounting for 20 per cent of all the country's businesses, manufacturing and services. Farm assets are almost equal to the assets of all the manufacturing plants in the country.

One out of every five workers earns a living in the production, transportation, processing, marketing and distribution of farm products. Improved production efficiency from one generation to the next contributes to the nation's economic well-being. Farmers today produce over 75 per cent more crops than their fathers did on the same area of land. A farmer's labour is more efficient; an hour today results in fourteen times as much food as it did half a century ago.

Productive efficiency in terms of time and yield makes United States citizens the best fed in the world. And they need work much less than most to earn the money for their food: only 16 per cent of their disposable income, on average, goes to food.

U.S. farmers are keenly aware that millions throughout the world are malnourished, and millions more are starving. "We are deeply frustrated and saddened that governments of the world won't get together and solve barriers caused by inadequate transportation, distribution and jealousies", asserts Robert Hughes, a dairy farmer in Woodstock, Illinois, the heartland of the Midwestern United States. "In the Midwest we are blessed with outstanding soil and an exceptionally good climate. We can produce wheat, corn and other grains more efficiently than anyone, yet we are confronted by economic conflicts among nations."

Hughes belongs to the fifth generation of his family to farm in Illinois, the third generation on the farm where the family owns and rents 600 hectares 100 kilometres northwest of Chicago. Lean and tanned, the forty-four-year-old farmer works the land with his father, Earl, and his brother, Earl, Jr., plus two men hired primarily to help with the dairy which produces an average of 1,460 litres of milk daily. Operated by the three Hughes families, the farm is comparable in size to the typical Midwest family holding where one farmer and his family work on average between 140 and 160 hectares. In the Western States where ranches and large wheat farms predominate, the average is 2,000 hectares for ranches and 1,200 for the Kansas, Nebraska and South Dakota wheat farms.

The efficiency of the U.S. farmer is one ▶

In the United States today farming is a highly industrialized activity which is the principal occupation of only some 2 per cent of the country's economically active population. Above, farmstead in Lancaster County, Pennsylvania. The US is the world's leading cereal exporter.

Photo Georg Gerster © Rapho, Paris

DON PEASLEY *is a US editor and photojournalist who was born and grew up on a grain and livestock farm in Illinois. He is closely involved in the work of various organizations of farmers in the US, and maintains an active interest in the family-owned farm.*

▶ of the success stories of this generation. About two-and-a-half million farmers in the United States cultivate 140 million hectares. The United States exports about 115 million tons of its feed grain. Hughes says 55 per cent of that total is produced in the great Midwestern heartland—a dozen States stretching from Nebraska and Kansas in the west to Ohio in the east.

What enables U.S. farmers to be so productive and efficient? Robert Hughes lists some of the factors, in addition to soil and climate. There is a system of incentives where initiative and decision-making are the catalyst. "If we do well, we are financially rewarded," Hughes says simply. As a result of the incentives, research is carried out into new techniques. The development of selective herbicides is one example of this. Another is the more scientific approach to the use of fertilizers which enhances the selective breeding and improved development of hybrid seeds. At the same time improved herbicides and insecticides, combined with sophisticated fertilization techniques, permit farmers to plant corn more intensely. Hughes recalls that in the middle 1950s he planted corn in rows one metre apart, 35,000 plants to the hectare, and planted so that it could be cultivated both ways. Now, with good insect and weed control, he plants corn 20-25 centimetres apart in rows that are 75 centimetres apart. "Genetic selection to produce good seed corn that will thrive under such crowded conditions is another factor in successful crop yields," he says.

Finally, large machinery, with farmers capable of planting forty hectares a day, enables them to prepare the soil and plant crops at the peak time to take advantage of ideal moisture and sunshine conditions. Hughes says that the ideal time to plant corn in northern Illinois lasts only between fifteen and twenty days. For each day outside that "ideal time" that he plants corn, yields decrease from one to five bushels a day. The combine harvester, which costs $75,000, adds to his efficiency, enabling him to harvest corn at the best time, with minimum field losses caused by bad weather in late fall.

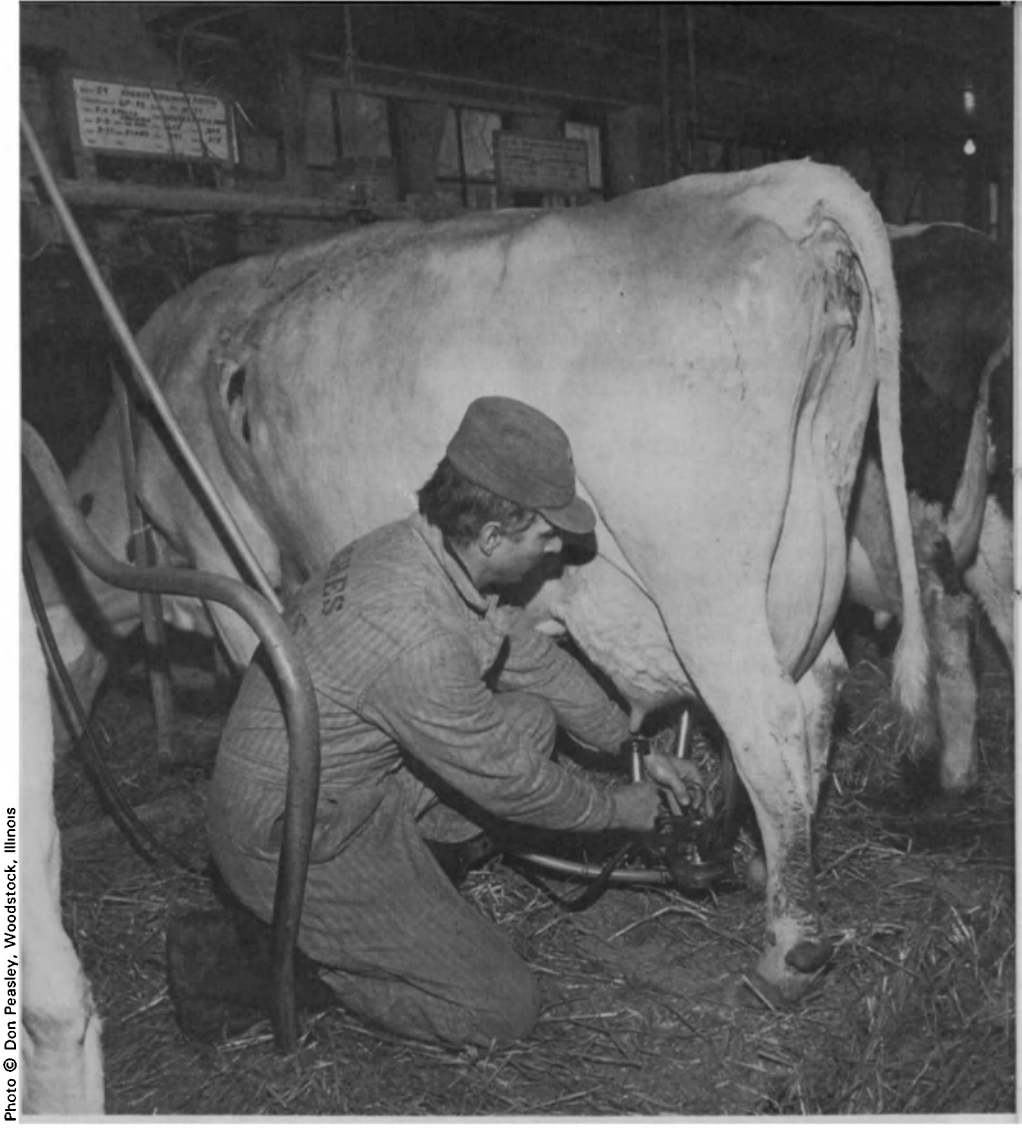


Photo © Don Peasley, Woodstock, Illinois

Developed in the early years of the century, milking machines were not widely adopted in the United States until after World War II. Since then hand milking has come to an end in commercial dairy farming. Illinois farmer Robert Hughes milks twice a day, like most dairymen in the United States.

The lives of farming men and women in the Midwestern United States centre on their families. Virtually all choose to live on the farm because of the joy and satisfaction that comes from tilling the soil, nurturing seeds, harvesting crops, and raising livestock.

Their daily working responsibilities and their social life are intertwined. They take an active part in the life of their community, in which there is a closely knit relationship between urban and rural families because their customs, economies and concerns overlap.

For most rural people their local church is a focal point of activity—a social, religious and community centre. They teach Sunday school, which is a programme of Bible study, meditation and learning how to apply the teaching of Jesus Christ. Attendance at Sunday church service is followed by relaxed socializing over coffee in the community room with discussions of current crop conditions and local school news.

Free education for all is an inherent right of all citizens, and farm people are among the leaders in serving on the boards of unpaid volunteers which guide the work of local schools. In Woodstock, Robert Hughes's father was a long-time board president and leader who insisted on quality education for rural and urban families alike. Robert and his wife Genevieve are members of the Parent-Teachers Association, a group in which teachers and parents work together so that their children can benefit from enlightened educational techniques.

Farmers invest much time in improving their way of life through service and activity in such organizations as Farm Bureau. The nation's largest volunteer membership

Numbers of draught animals and tractors 1980-2000

Region	1980		1990		2000	
	Draught animals	Tractors	Draught animals	Tractors	Draught animals	Tractors
	millions of units					
90 developing countries ...	190	2.3	199	5.3	208	9.9
Africa ...	21	0.2	22	0.5	24	1.1
Far East ...	137	0.5	146	1.3	154	3.3
Latin America ...	19	1.1	19	2.5	18	4.2
Near East ...	13	0.5	12	1.0	11	1.3
Low income countries ...	137	0.4	145	1.1	152	2.8

Source: *Agriculture: Toward 2000* - FAO

organization of farmers, Farm Bureau aims to promote better crop production, improved marketing know-how and better communication with the 97 per cent of the people of the United States who belong to non-farming families.

An overwhelming number of future farmers come from the families of farming men and women. They learn a great deal while growing up because they are involved in the day-to-day responsibilities, from milking cows to planting corn and mowing hay. Eager to keep abreast of current technological and scientific developments, farm youngsters join their parents in the quest for knowledge about scientific breakthroughs. From computer programs designed for farmers to improved seeds to withstand the stress of drought or an insect invasion, all family members welcome seminars and college-planned programmes.

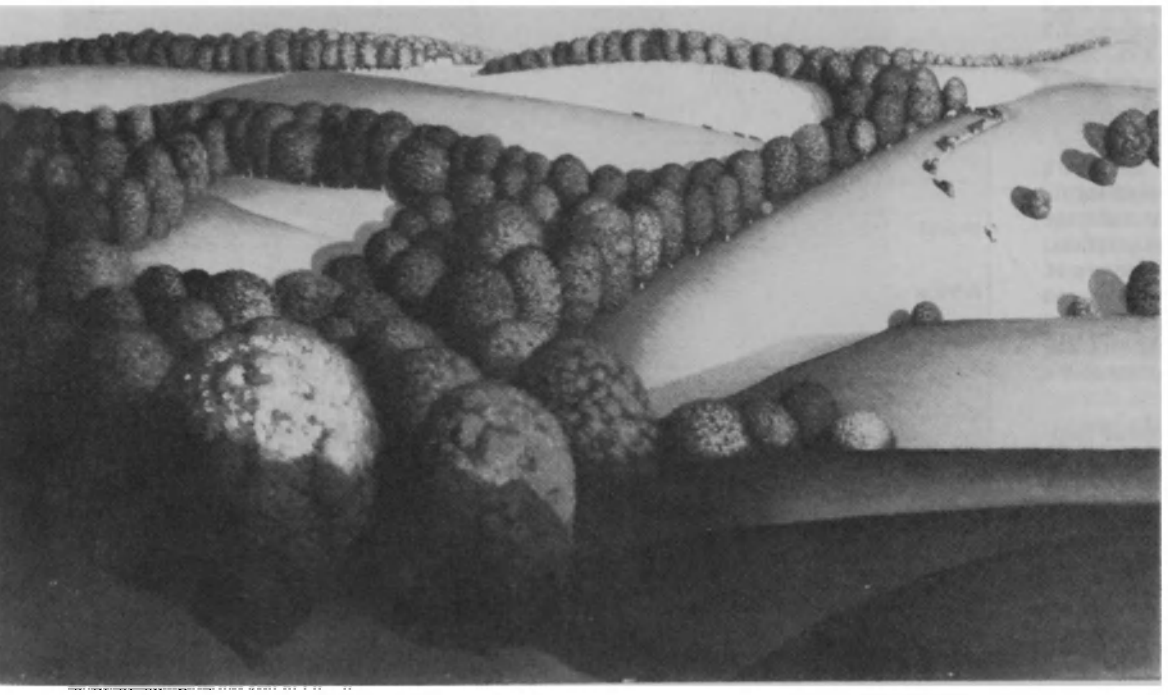
"Farming is a way of life," says Robert Hughes. "That may seem simplistic, but it is true. We devote a great deal of time to farming. A dairy farmer, for example, is tied down seven days a week. Farms in the United States are 99 per cent family farms, and so everyday living means the family is together.

"By nature farmers are optimists. We have the freedom to do what we can do best: feed livestock, raise grain or milk cows, switch to another crop or cut back. We're on our own in that respect, even though government involvement certainly affects everyone. We are hardy and imaginative. We'll fertilize more efficiently. We'll use more no-till to reduce costs and at the same time save our valuable soil. These are some of the thoughts that go through my mind when I look out over my growing corn, bathed in sunlight and urged on by the warm June sun."

■ **Don Peasley**

Photo T. Mahieu © Rapho, Paris

Rice is harvested by powerful combines in the United States before being trucked off to storage. Legend has it that rice was brought to the US in the 17th century when a storm-damaged ship from Madagascar took refuge in the harbour of Charleston, South Carolina.



Left, *Near Sundown,* an oil painting by Grant Wood (1892-1942) who won fame for his portrayals of scenes from Midwestern rural life.

Photo © Spencer Museum of Art, University of Kansas

Where town meets country

Bulgaria's post-war revolution in farming

by Minko Kazandjiev

The village of Donavtsi in the department of Vidin, north-western Bulgaria. In the foreground is the co-operative store, and behind it the administrative offices of the local agricultural and industrial complex.

Photo © Pressphoto BTA, Sofia

BEFORE the Second World War, Bulgaria ranked among the agriculturally backward countries of Europe. Agricultural land was divided into 12 million plots and this fragmentation resulted in low productivity and deteriorating social and economic conditions. The peasants tilled the land with wooden or crude iron ploughs, harvested the crops with sickles and threshed the corn with primitive, spike-studded threshing boards.

Between 1940 and 1944 the average yield of wheat was 999.5 kilograms per hectare, and of maize 941 kilograms. The annual milk yield of a dairy cow averaged about 500 litres while wool production amounted to 2.5 kilograms per sheep. In the 1950s, most villages were still without electricity and running water and had no public health, social or cultural facilities.

The socialist reorganization of agriculture followed three main directions: voluntary regrouping of farming land through the gradual establishment of co-operatives; mechanization and re-equipment by means of grants and long-term, low-interest loans and the establishment of State tractor and agricultural machinery centres; radical transformation of the social conditions of life of the rural population.

By about 1956, most of the individual landholdings had been re-grouped into co-operative farms. The rural workers made redundant by this reorganization—their numbers were swelled when the primitive working implements of the past were consigned to their rightful place in museums—found new productive employment thanks to the industrialization of the country and the urban growth this entailed. Today over 65 per cent of the population live in the towns, compared with 25 per cent in 1944, whereas the working rural population amounts to 20 per cent or less.

The period 1960 to 1970 saw further advances in the restructuring of agriculture, while urbanization developed apace. This process, which took on a variety of forms whose economic, political and social objectives nevertheless converged, involved changes in the administrative and managerial structures of the country.

Within the framework of the twenty-nine main administrative units (the departments) 291 districts were established and the country's 854 co-operative farms were reorganized into 290 agro-industrial complexes. All the complexes of a department together form a departmental agricultural and industrial union and these unions in turn are linked to constitute a national agricultural and industrial union which has the rank of a ministry, although it is not financed by the State and functions along traditional co-operative lines.

Population (in thousands)

	Year	Total	Agricultural
World	1970	3 696 640	1 902 790
	1981	4 513 440	2 055 630
Africa	1970	354 825	246 287
	1981	484 355	303 832
North America and Central America	1970	319 783	52 095
	1981	380 878	53 340
South America	1970	190 193	74 038
	1981	246 087	77 836
Asia	1970	2 110 590	1 371 410
	1981	2 624 960	1 504 760
Europe	1970	459 180	92 354
	1981	486 469	68 897
Oceania	1970	19 320	4 312
	1981	22 963	4 755
USSR	1970	242 766	62 294
	1981	267 735	42 211

Source : *FAO Production Yearbook* (1981)

MINKO KAZANDJIEV, *of Bulgaria, is a professor at the Bulgarian Academy of Agriculture and at the Higher Institute of Economics. He is the author of several studies on Bulgarian agro-industrial policy.*

Above, a mechanical grape-harvester at work in a Bulgarian vineyard. The mechanization of agriculture carried out since the Second World War has radically transformed the lives of Bulgarian rural workers.

Photo © Pressphoto BTA, Sofia

***Peasant Women,* by the Bulgarian realist sculptor Ivan Lazarov (1889-1952).**

Photo © Sofia Press, Bulgaria

Thus, today, agriculture in Bulgaria is fully integrated with the engineering, chemical and processing industries as well as with the various scientific organizations. The Bulgarian Academy of Sciences, with its national network of scientific institutes and experimental centres, as well as all agricultural schools and colleges, are institutional members of the union. All members of the union retain their rights as individual entities and are financially autonomous with their own reserve funds. Associated directly in this way with collectively organized labour, science and technology become an integral part of socialist agriculture, just as the farm worker's labour becomes a form of industrial labour.

In terms of output, agriculture in Bulgaria has already reached the level of the most advanced countries. In 1982, for example, average yields per hectare in kilograms were: wheat 4,666, maize 5,771, tomatoes 29,908, sugar beet 27,284, peppers 17,189, and potatoes 11,706. Bulgaria now produces more than a ton of cereals per head of population and average individual consumption per year is: bread 216 kg, meat 61.2 kg, animal and vegetable fats 21 kg, milk and dairy products 170 kg, sugar and confectionery 35 kg, eggs 204.

Agriculture under private enterprise can also achieve good results in quantitative terms, but the salient feature of the history of the development of socialist agriculture is the radical transformation it has brought about in the social situation and daily lives of rural workers. In practical terms, this transformation has meant a considerable rise in the standard of living: complete modernization of housing and consumer goods—household equipment, radio, television and cars; equal pay for equal work for men, women and young people; introduction of a single social security and pension system for agricultural, industrial and clerical workers (women are eligible for a pension at 55, men at 60); free medical services and education for all. Bulgarian villages have also been fully modernized in all respects—architectural, communal, cultural and social. Every village has its public library and cinema, and a cultural centre where the popular arts and traditions are preserved and enriched, and is linked to the rest of the country by a huge road and rail network, telephone, telegraphic and radio links and a modern postal service.

The old image of the isolated village cut off from the world is today to be found only in books or museums. Within a very short time span socialist Bulgaria has succeeded in resolving the age old antagonism between town and country.

■ **Minko Kazandjiev**

The new nomads

by Jean Fauchon

A motionless cloud of yellow dust hung over the sandy track which had brought us, in three hours, from Lagbar, the capital of the Ferlo desert in the north of Senegal, to the N'Doli well. Little by little the still air filled with a chorus of lowings and bellowings and cries of all kinds, as herds in ever larger numbers crossed our path. At first a few white buildings and then, suddenly, we came to an immense square. In the middle were long iron troughs, supplied by a tall water-tower, and all around animals in their thousands, carefully separated into groups—white cows with enormous horns, countless perfectly disciplined goats, long-legged sheep and now and again cowherds or shepherds riding horses and camels.

Each herd drank its fill then left the troughs, to be replaced immediately by another, and set off across the Ferlo towards the pastureland to spend the night, grazing on the carpet of grass and flowers which the rainy season—from about July to September in those parts—had just brought forth.

Though partially settled, the Peuls still remain nomads because their lives are bound up with those of their animals and the temporary pastures on which they live. But they are " new " nomads in that they follow organized circuits in search of grazing for their herds, often watering them at specially bored wells around which rural townships are gradually growing up, even providing medical care, veterinary services, shopping facilities and sometimes schools.

All this is a far cry from the picture of nomads we have cherished—huge caravans traversing the steppes of central Asia to trade silk and cinnamon for rugs, jade or ivory; warring Tuaregs roaming the Saharan wastes, keeping African slaves under their yoke to farm for them the fringes of the desert; Peul or Masai herdsmen driving their half-starved cattle in search of conjectural grasslands. In short, people living in arid, if not desert regions who, out of economic necessity, have adopted a way of life involving virtually continuous movement in order to ensure their livelihood.

What is the position today? Maritime transport, lorries, even aeroplanes, have consigned to history the once endless files of caravans along the Silk Road. However, beasts of burden still have a considerable role to play in the transport of certain goods, particularly products which have to be brought from remote regions to the major highways. Salt from the Uyuni lagoons of Bolivia is distributed on the high Andean plateaux by teams of lamas several hundred strong, and from the Bilma mines of Niger throughout the Sahel and the Sudan by Tuareg caravans.

Other forms of transport are more local. Each year hundreds of yaks cross the Tibetan border through the upper valley of the Tsangbu to trade Chinese salt or wool for corn and potatoes from Nepal. Camels bring to the road terminals cabbages, onions and other vegetables from the region of the Nyayes, north of Dakar along sandy tracks in which the wheels of motor vehicles would sink, but which their wide-spreading, two-toed feet tread without difficulty.

The men who lead these beasts of burden are rarely accompanied by their families, and they could scarcely be said to be a " nomad " society with all the attributes of nomad civilization. It might even be asked whether such societies still exist today.

The pressure of economic, social and cultural upheavals is causing these groups to evolve rapidly, if not to disappear altogether. In the Sahara, some of them, having lost their sovereignty over the oases cultivated by their former slaves, have begun to live off their camels, rearing them for their meat and skins and constantly searching for the grazing on which they are more and more dependent. Some make seasonal migrations, moving towards the arable land along the river banks in the dry season and, when the rains come, dispersing once more to the scattered temporary watering

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An Afar encampment in Ethiopia. The Afars, also known as Danakils, are muslim nomadic herdsmen of the Horn of Africa.

Photo © Claude Sauvageot, Paris

Photos © Amos Schliack, ANA, Paris

The Rendille people, who number about 9,000, are nomadic herdsmen from a region to the south-east of Lake Turkana, Kenya. They depend for their livelihood mainly on camels with whom they roam as far as Somalia and Ethiopia in search of water and grazing. Above, a Rendille encampment and, below, a tent being dismantled in preparation for a move.

places. Others have settled and started to grow crops on the former flood plains, while still keeping some sheep and goats. Occasionally, newly-discovered mineral deposits, especially oil or uranium, provide nomads with opportunities for employment, hampered though they are by their lack of general or technical training.

The great droughts of the last decade have had disastrous consequences not only in the Sahel but also in many other regions. In Mauritania, in 1965, 58 per cent of the population were classified as nomads. Ten years later, the figure had dwindled to 25 per cent and, after the great drought of 1977, which caused irreparable damage, dropped still further. During the same period, the settled rural population increased from 15 to 42 per cent and the urban population from 7 to 31 per cent. Mali, Chad and the Sudan were similarly affected; in certain regions men left their families to seek a means of survival and never returned; sometimes,after losing all their herds, they committed suicide. Thus the droughts hastened an evolution which had been taking shape for several years.

Nomad herdsmen are, in fact, menaced by a more serious threat. In the Sahel, the scarcity of arable land, combined with population pressure, has caused farmers to extend the areas they cultivate further and further northwards, to the regions where the last of the rains from the Gulf of Guinea fall. These regions, with their scant and uncertain rainfall (from 100 to 300 mm a year), had long been the preserve of the nomad herdsmen who knew how to use them to the best advantage, moving their cattle from pasture to pasture. But they are gradually being ousted by sedentary farmers avid for land who refuse to allow them to graze their herds even in temporarily fallow fields.

Moreover, governments almost everywhere have adopted a policy of settling nomads. They reproach them with being unruly, with refusing progress, hygiene and the control of the legal authorities, and with living in archaic social conditions. Nomads are often accused of being pillagers and, worst sin of all, of contributing nothing to the national economy. In that respect, the great ▶

▶ droughts, by eliminating a section of the nomads, were not unwelcome in the eyes of certain local politicians.

What tends to be forgotten is that the disappearance of the nomads would leave large stretches of arid land completely void of human life and unexploited, even though, if properly organized, the nomads' herds could supply large quantities of meat and hides. Although there is little likelihood that the great caravans of the past will be seen again, some use of beasts of burden will doubtless continue, since the rise in the price of oil and the cost of the upkeep of roads and vehicles makes this form of transport competitive, particularly when it is a matter of carrying produce and wares through difficult, roadless terrain.

In Scandinavia and the USSR, the Lapps, the nomads of the north who lead large herds of reindeer from the great northern forest, in winter, to the Arctic tundra, in the summer, are now prospering thanks to economic and social measures which have made it possible for them to maintain a traditional though modernized way of life. This limited but nevertheless real nomadism based on new methods of reindeer breeding offers an intense social life and all the advantages of modern times. Without these people the vast north would be empty and this would create many problems, including those of territorial defence.

The position of the nomad in arid sub-tropical regions is not unlike that of the Lapps. The raising of camels, cattle or smaller livestock remains the keystone of their existence. Many solutions have been proposed and sometimes applied, for modern development of the arid lands on the basis of extensive stock-farming—surveys of migration routes, the provision of strategically placed watering points, continuous supervision and development of wells and the areas around them, control of the movement of herds according to the grazing available, and rational organization of the marketing of the various animal products such as meat, hides and wool.

State intervention is essential because the nomad shepherds, for the time being at least, are technically and financially unable to bear the burden of up-dating their breeding methods. But States should not set out to settle permanently the maximum number of nomadic tribes. Transforming nomads into farmers often proves an impossible task, not only because of the fundamental opposition between herdsmen and farmers, but also because the very way of life and traditions of the nomads militate strongly against any settled form of existence. This can have far reaching effects. Experience in some training centres, for example, has shown that it is easier to train young people from nomad groups for industrial occupations than for agriculture and that they often make better lorry-drivers than rice or millet farmers.

Nomads are citizens like anyone else, a fact of which they are very aware. They are also aware of the need for integration into modern society, the main route to which is through literacy. Compulsory education is inscribed in the constitutions of most of the countries bordering on the Sahara, and this applies as much to the nomads as to anyone else. But they will have to be provided with education in their own language, perhaps by a judicious use of the radio and school sessions for young people at specific periods.

Another essential aspect of the modernization of nomadic life is the organization of medical care. Although their hardy existence results in the survival of the fittest, the women are no longer prepared to accept the very high infant mortality rates that are too often the rule in nomad tribes. Vaccination, the fight against endemic disease and emergency treatment for accident cases must be coupled with the introduction of elementary public health methods. The training of health officers of nomad origin and the setting up of welfare centres near the wells, for example, could change the lives of nomad herdsmen and alter their attitudes towards government authorities by demonstrating that they are not a rejected category of the rural population.

For thousands of years men maintained a certain equilibrium in the great regions consisting of a combination of fertile, arid and desert land, making the most of the sparse resources offered by their natural surroundings. Today, the economic and social evolution of the modern world has finally destroyed these fragile structures.

Nomadism probably remains the only way of developing immense areas which would otherwise be devoid of human life. The States concerned should bear this in mind in seeking to establish a new equilibrium that might eventually lead to the survival and improvement of the nomadic world.

■ **Jean Fauchon**

A small Peul encampment sited near a well, in Mauritania. In the foreground is the *shaduf*, the balance arm by means of which water is brought to the surface. Successive droughts have lowered the water table to a depth of 10 metres, well beyond the operating reach of the *shaduf*.

Area already affected or at risk of being affected by desertification in the developing countries, by continent

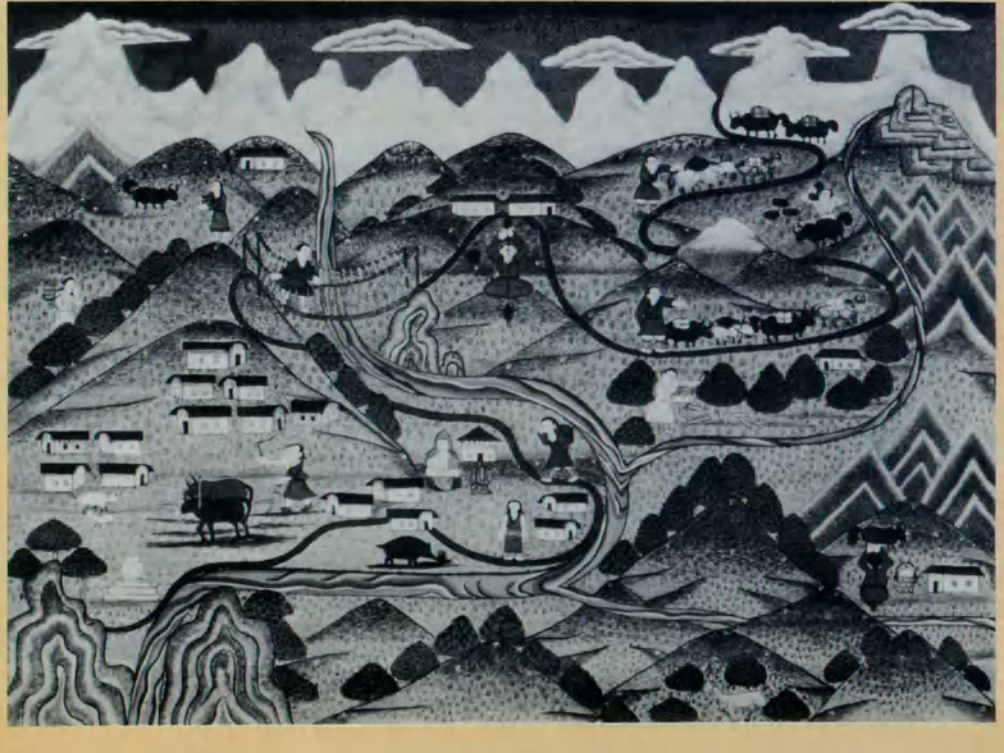
Region	Existing extreme desert	Degree of risk of desertification			Total	Percentage of total land area
		Very high	High	Moderate		
	thousands of km²					%
Africa	6 178	1 725	4 911	3 741	16 555	55
South America	200	414	1 261	1 602	3 477	20
Asia	1 581	790	7 253	5 608	15 232	34
Total	7 959	2 929	13 425	10 951	35 264	28

Source: *Agriculture: Toward 2000* - FAO

Right, Rendille camels at rest near a watering-place. On their backs can be seen the frameworks of their owners' tents which will be erected as soon as a new camp site is selected and which afford some protection to the women and children and other precious possessions while on the move.

In 1980, some 2,000 million people, or three-quarters of the population of the developing countries, depended on firewood and other traditional fuels for their daily domestic energy needs. Shortage of firewood affects some 1,150 million people throughout the developing world and is particularly serious in Africa and even worse in Asia. Right, searching for firewood in the desert.

Photos © Jean Fauchon, Ferney-Voltaire, France



Twice a year yak caravans from Tibet, loaded with salt, grease and wool, cross mountain passes up to 5,000 metres in altitude to reach the upper valley of the Tsangbu, in Nepal, where their cargoes are exchanged for cereals and wood. This age-old barter is essential to the livelihood of both peoples. Left, naive map/painting of the caravan route from Tibet to Nepal by Lama Karma Chirum.

Photo © Eric Valli, ANA, Paris

UNESCO NEWSROOM

Communication prize to be awarded for 1st time

The McLuhan Teleglobe Canada Award, an international prize for work in communication, is to be presented for the first time this year, under Unesco's patronage. Worth 50,000 Canadian dollars and accompanied by a commemorative medal, the Award has been established by the Canadian Commission for Unesco in association with the Teleglobe Canada Corporation. It will be awarded every 2 years in recognition of work by an individual or team making an exceptional contribution to the better understanding of the influence of communications media and technology on society, and in particular on cultural, artistic and scientific life. A jury of Canadian citizens will select winners from candidates nominated by National Commissions for Unesco. Deadline for submission of candidates for 1983 is 31 July. Herbert Marshall McLuhan, who died in 1980, was born in Edmonton, Alberta, in 1911 and became famous as a media and communications theorist in such works as *The Gutenberg Galaxy* and *The Medium is the Massage.*

Unesco appeal for Moenjodaro

The Director-General of Unesco, Mr. Amadou-Mahtar M'Bow, has launched an international appeal for aid to safeguard Moenjodaro, the 4,500-year-old city-site of the ancient Indus valley civilization in Pakistan. Moenjodaro's outstanding remains are threatened with total destruction by rising groundwater containing mineral salts which are eating away the brickwork, undermining foundations and corroding the walls of all the buildings. In the past 20 years, thanks to efforts by Pakistan which has financed the major part of the work, and contributions from an earlier Unesco appeal in 1974, much progress has been made in implementing a three-point plan to lower the water table, divert the course of the Indus and remove the mineral salts, but further contributions are needed if all the plan's objectives are to be achieved. Enormous resources are required to achieve better control over the groundwater level and there is an urgent need to restrain the Indus. A recurrence of flooding such as that which struck Sind Province in 1973 could bury Moenjodaro for ever.

Nobel prizewinner appeals for scientific responsibility

In an article published in the French newspaper *Le Monde* on 9 March 1983, Jean Dausset, winner of the 1980 Nobel Prize for Physiology and Medicine and professor at the *Collège de France*, launched an appeal in favour of the Universal Movement for Scientific Responsibility, extracts from which we publish below.

"At a time when every day brings its tally of astounding new technological exploits and its flood of human dramas, we are becoming more and more aware that we are living in the most exhilarating but also the most dangerous period of the saga of mankind.

"There are those who, while enjoying the benefits of scientific progress, feel a certain nostalgia for the past, which there has always been a tendency to idealize. Many fear for the future and, judging themselves to be unable to change the course of events, withdraw into a resigned passivity.

"Both these attitudes are irrational. On the one hand, all knowledge is a form of liberation. We cannot, and must not, halt the march of science. On the other hand, we must have confidence in the ability of mankind to find for itself the paths to survival.

"In a finite world in disequilibrium, a world which will soon be overpopulated, the scientist bears an increasingly heavy weight of responsibility. Sciences et Devenir de l'Homme *(Science and the Future of Man), the French branch of the Universal Movement for Scientific Responsibility, aims to awaken the awareness of scientists and all those in positions of authority, indeed, of all men, to the huge responsibility which is theirs.*

"Scientists have, at times, been suspected and even openly accused of wanting to 'seize power'. In fact, their feeling is that the time has come to place themselves at the service of society. In a threatening world, no individual, no single authority, no group appears capable of controlling the situation. A well-informed, determined public opinion seems likely to be the sole force able to guarantee that wisdom prevail."

Archaeology summer school in Italy

As part of its efforts to develop worldwide co-operation among archaeologists studying rock art, Italy's Centro Camuno di Studi Preistorici (CCSP) is organizing a summer school from 4 July to 8 August 1983. The school is being held at the CCSP, at Valcamonica, where more than 180,000 prehistoric rock art figures have been recorded. In collaboration with Unesco, the CCSP is currently preparing a world inventory of rock art. For further information about the summer school, which includes exploration, field research, lab work, projection of documentaries, lectures, and debates, please write to: Centro Camuno di Studi Preistorici, 25044 Capo di Ponte (Bs.), Italy.

Studying non-violence

A two-week international course on "Non-violence—meanings, forms and uses" is being held this summer under Unesco auspices at the Inter-University Centre of Postgraduate Studies (IUC) in Dubrovnik, Yugoslavia. The course, from 26 June to 8 July, seeks to offer a comprehensive view of non-violence based on the writings and experience of outstanding leaders from many parts of the world. Enquiries should be addressed to the IUC Secretariat (Frana Bulica 4, YU-50,000 Dubrovnik, Yugoslavia) or to one of the 2 course directors: Theodore Herman (Peace and World Order Studies Program, Colgate University, Hamilton, N.Y. 13346, USA) and Nigel Young (Hetton House, Hetton, Skipton, North Yorkshire, England).

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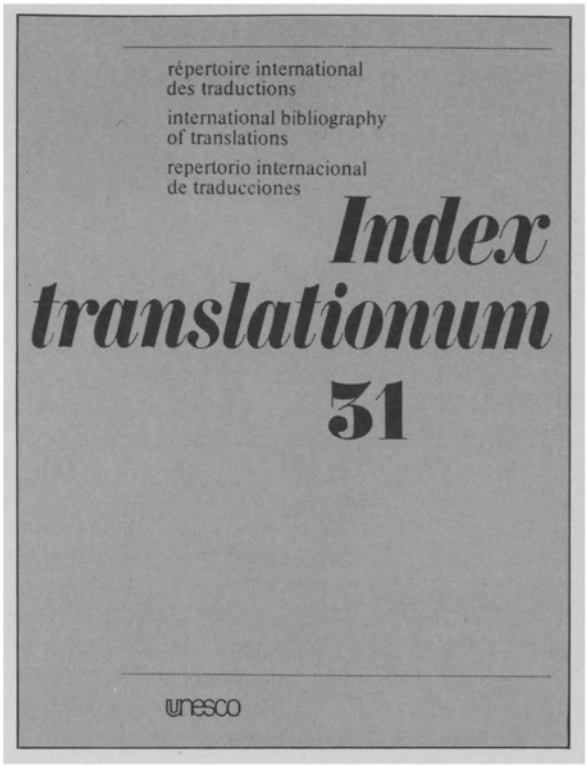

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